



College AND UNIVERSITY Business

MARCH 1947 Portfolio of Recruiters • Planning • Service
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GUEST EDITORIAL

Are We Overbuilding?

COLLEGES AND UNIVERSITIES PLAN TO SPEND some billion and a half dollars in expanding their physical plants during the next five years.

An obvious need for expansion exists: Booming enrollments since the end of the war have brought educational institutions face to face with problems of overcrowding that never before existed. Crowded classrooms and inadequate laboratories do not furnish the proper atmosphere for the efficient functioning of higher education.

Construction arrears have accumulated steadily for the last decade. Beginning with the depression years of the 1930's, setbacks in long range building plans gained further impetus during the war when suspension of all building became a necessity. Colleges and universities have emerged into the new time of peace to find themselves underequipped for the growing demands of their educational facilities.

Lack of classroom space is not the only evidence that institutions of higher learning find in this underequipment. There is a corresponding lack of teaching personnel. Government agencies and private businesses, with their attractive salary offerings, are in direct competition with the college and university for services of trained men and women. Moreover, the graduate schools in which future instructors are normally prepared were seriously depleted of students during the war years. Educators must bear in mind the fact that

the success of education depends not on buildings or equipment but on scholars and teachers who possess the capacities, ideals and insight necessary to make students of their pupils.

Recent criticism is that American education has taken on too much of the mass production technic. True or not, that criticism might be well considered by any institution that proposes a rapid and large expansion of its building space without a corresponding attention to the selection and enlargement of not merely an adequate but an outstanding teaching staff. Nor will such a staff be recruited without the promise of careers that are suitably rewarded.

With building costs doubled since 1940 and with present shortages of materials, it is perhaps better to build only absolutely essential structures. Institutions that wait until costs level off will realize better values for available funds. Certain state universities, however, have building funds available for a limited time only. They may have to build immediately and thereby obtain less value for their building dollar than institutions whose funds permit waiting.

Doubt as to whether the present high enrollments will continue, the shortages of high quality materials for permanent buildings and the need to maintain high ideals of teaching would seem to caution against an overreaching in university building at the present time.—STANLEY PATTERSON, *superintendent of buildings and grounds, Southern Methodist University.*



College AND UNIVERSITY Business

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J. L. BROWNING

JAMES L. BROWNING, business manager of Carroll College, doubles as director of the department of economics and business administration. Before joining the college staff 20 years ago, he had been associated with the Burlington Railroad and with Armour & Company. During the last twelve years he has been active as consultant in business administration for industrial plants in the Milwaukee area. He owns a 15 acre country estate near Delafield, Wis., and complains that college and business interfere with gardening and flowers. . . . HARRIET HAYES, associate director of personnel services in charge of student welfare at Teachers College, Columbia University, is a residence hall consultant. She is now serving as editor of a booklet, to be published by the Association of Deans of Women, that will treat in detail with residence hall planning and its accompanying problems.



J. R. ANTHONY

JAMIE R. ANTHONY, purchasing agent of Georgia School of Technology, knows the institution from the ground up. Starting at Georgia Tech as an office boy in 1929, he has successively moved up through the stages of clerk, assistant purchasing agent and co-manager of the bookstore to his present position. His hobby: organizations. He is a member of the Junior Chamber of Commerce, executive committee member of the Southern Association of College and University Business Officers, vice president of the purchasing agents' association of Georgia and chairman of the southeastern group of the Educational Buyers Association.



H. B. MacNAMEE

HOMER B. MACNAMEE, superintendent of grounds at Cornell University, has been a man of the soil for many years. Starting in this work in 1920 at the University of Michigan, he left in 1932 to accept his present position at Cornell. Books on philosophy, biography, history and religion constitute his special tastes, though he lists his hobby-in-chief as a "garden and ornamental nursery where I can work in the soil with my hands and in my own way." He is skilled as a tree surgeon, as one may infer from reading his article. . . . HENRY KAMPHOEFNER, professor of architecture at the University of Oklahoma, is no worshipper of tradition. In his opinion, it is a strange paradox that "college and university buildings have done more to retard the progressive growth of architecture in the United States than has almost any other factor."



W. J. BUNTAIN

WILLARD J. BUNTAIN, director of dormitories at Northwestern University, has been interested in student problems and personnel relationships for many years. Prior to his present appointment, he was personnel director of a large finance company and also was associated with Carleton College. His 14 year old son has recently been successful in interesting his father in Scouting. Mr. Buntain claims that he is "a very average person with no outstanding characteristics except a deep interest in students."

Looking Forward

It Could Happen to You

THE RECENT TRAGIC ACCIDENT AT PURDUE UNIVERSITY, in which three students were killed and many injured when bleachers collapsed during a basketball game, dramatizes the importance of student safety.

Colleges and universities are charged with a serious responsibility when they accept a student for their institution. Not only must they provide that student with the best instruction of which they are capable but also they must assume responsibility for his conduct and welfare.

With overflowing enrollments evident on most campuses, it is imperative that full consideration of health and safety factors be a prime objective of the institutions' administrators. Facilities for the safety and health of students and staff must be provided so that tragic accidents or epidemics will not occur. It is not enough to say "it can't happen here" and dismiss the matter with a shrug of the executive shoulders. Congestion in classrooms and public buildings on the campus is inevitable these days and will cause accidents unless these are anticipated and guarded against.

Proper insurance coverage for such contingencies is likewise important. This involves both property protection to cover necessary replacement and adequate provision for public liability resulting from accident and catastrophe. Just one fatal or serious accident resulting from institutional neglect or carelessness could seriously jeopardize that institution's relationship with its constituency for many years.

Security or Else

COLLEGES HAVE BEEN NOTORIOUSLY LAX IN providing welfare benefits for nonacademic personnel. The results of a nationwide survey on the status of nonacademic employees conducted by COLLEGE AND UNIVERSITY BUSINESS and reported elsewhere in this issue reveal a uniform lack of consideration of retirement and other security provisions for them.

This position becomes indefensible when one realizes that under present regulations Social Security benefits are not available to college and university personnel. Some colleges have operated on the policy, or lack of policy, of crossing that bridge when they come to it. No definite stand has been taken that covers the contingencies of illness, death or retirement of nonprofessional staff members.

It is hoped that legislation pending in Congress will extend Social Security provisions to employees in the educational field. However, that eventuality will only partially meet the situation, and it behooves college administrators to give immediate consideration to welfare provisions for employees.

It is both good business and good public relations to adopt such a policy. Social thinking has progressed to the point at which an employee may withhold complete loyalty and full production from an institution indifferent to his present and future welfare.

No Gravy Train

OVERFLOW ENROLLMENTS AND VAST FINANCIAL appropriations to colleges through state and federal authorization have created the impression in some circles that higher education is riding a prosperous "gravy train." Reports from institutions across the country indicate that this conclusion is far from fact.

Emergency provision for student housing alone has jeopardized many a college's operating budget, despite substantial financial aid from federal or state governments. A recent survey by the American Council on Education reveals that federal appropriations cover only 60 per cent of the cost of veterans' education. State universities in Illinois, Michigan, Wisconsin and many other areas have been obliged to petition their respective legislatures for deficiency appropriations to tide them over the crisis. Private colleges and universities have not escaped the strain, either, despite higher tuition charges. One Eastern college president states that his students pay only 40 per cent of the cost involved in their education. Owing to reduced earning on endowments and investments, this phase of private college income has failed to keep pace with overwhelming demands.

Coupled with the expanding enrollment, a general increase in salaries of faculty and nonacademic personnel has added another straw to the camel's back.

To the credit of higher education, it can be recorded that prodigious effort has been made to accommodate those desiring a college education, regardless of whether or not the institution could stay on the black side of the ledger.

Such service cannot be rendered indefinitely. The supporters of higher education must soon learn that they will have to pay the freight if high standards are to be maintained.

Dormitory Planning

IF YOU ARE GOING TO BUILD

HARRIET HAYES

Associate Director of Personnel Services in Charge of Student Welfare
Teachers College, Columbia University

THE PLANNING OF A RESIDENCE HALL FOR COLLEGE students is difficult and exacting business. Almost never is there quite enough money and those responsible for getting the building up—both architects and building committees—are often relatively or completely inexperienced in this type of work.

Residence halls are in certain ways like hotels, like clubs and like homes, yet they are essentially different from any of these, presenting their own peculiar problems in structure and in operation. Furthermore they last, with all their bad features as well as their good ones.

QUESTION NO. 1

The first question a building committee should ask is that of *the probable future of the institution*: its long term program and its overall campus plan; also its relationship, present and anticipated, to the surrounding community. Some colleges intend to remain small and to be relatively self contained. Others expect to expand both in program and in numbers with need, perhaps, for residence halls for married as well as for single students. Some institutions, especially state colleges, look forward to the development of elaborate programs of community or regional service and to the use of campus buildings for the entertainment of outside groups. Location, size and character must be decided upon in terms of the future.

The next question a building committee must answer is *the relationship of the proposed residence hall to other campus structures*. The tendency in recent years has been to develop residence halls in groups, usually convenient to recreational facilities. In coeducational institutions there may be one residential campus for men and another for women. While this arrangement is desirable in many ways, it has been found inconvenient when the proportion of men to women changes and it is necessary to use a men's hall for women or vice versa. As more and more colleges are open for summer terms and the character of the student body alters considerably from one term to the next, this question of general convenience and flexibility in use becomes important. The present influx of veterans, with many temporary buildings erected to care for their housing needs, has complicated the problem of planning.

The *choice of an architect* is often a difficult matter. As was said earlier, not many architects have specialized in this field and some of those who have are associated in thought with a particular architectural style or type of building. Since each campus has its own complexities of atmosphere, traditions and customs, the need for understanding and interpretation by the architect is great.

CHOOSING THE ARCHITECT

Perhaps the best procedure is to make inquiries among neighboring colleges as to their experience with architects and to select one who has shown himself willing to study local conditions and to give them full consideration in his planning. Architects tend to work from the outside in, endeavoring to create a building that fits the site properly and that is attractive in appearance. They are often unfamiliar with the internal functioning of a dormitory. It is advisable to choose an individual who is willing to work out details of the interior with those who know dormitories from the inside out.

Having chosen him it is essential that the building committee should *use the architect's services intelligently*. An architect is not supposed to tell a college what it wants in the way of a building. On the contrary, it is the obligation of the college to give this information to the architect. His function is to carry out the wishes of the institution, to offer solutions and to give the benefit of his skill and special training in meeting the various problems. The concise and clear cut "program requirements" supplied for the architects in the recent Smith College dormitory competition (*Pencil Points* for April 1946) are an example of careful thought, probably more specific than many colleges are prepared to offer. But they serve to illustrate this important point. In any case the building committee should be in agreement as to size, type and general features before beginning work with the architect.

After preliminary sketches have been prepared, these should be studied minutely by *those who are experienced in dormitory administration*, preferably by those who are actually to have charge of the new building. The practice occasionally followed of permitting dormitory plans to be made and accepted with no opportunity for criticism by

those who are to be responsible for administration of the buildings is inexcusable and it usually proves to be costly.

College campuses abound in halls that are needlessly expensive to operate and inconvenient to live in. No architect wishes, of course, to design a building that does not function as it should. The difficulty usually lies in his lack of knowledge regarding specific needs in administration, also in the corresponding lack of experience in the reading of blueprints on the part of the building committee. As a result, far too many mistakes are made. A good architect can be counted upon to welcome constructive suggestions for making his buildings more acceptable.

Common faults in residence hall construction today are of two kinds: those that interfere with efficient operation and those that interfere with comfortable living. The general requirement that space allowances be reduced to a minimum in order to keep construction costs down has resulted too often in false economies. These usually show up later in increased expense for labor, for extra electric current or other operations. It is not a saving to omit a service lift if an additional porter must be employed year after year because a lift was omitted. Narrow corridors, badly placed offices and inadequate storage spaces may and often do result in breakage, slowing up of service and costly inconvenience. It is obvious that space should not be wasted in planning but if buildings are to be paid for over the years out of earnings, as most dormitories now are, more attention should be given to operational efficiency in the original design.

AWAY FROM RIGIDITY

A certain rigidity also characterizes many of the newer buildings. The tendency is to erect larger halls for reasons of economy but the cold and institutional character of such structures often defeats the social aspects of dormitory life. Their large and noisy dining rooms are far from homelike. Moreover, it is difficult to find individual students and to encourage their personal development in the way colleges are supposed to do when they are herded together by the hundreds. If halls must be large, every means should be employed to introduce flexibility and to break down the interior into more intimate units with variety in decoration and furnishings if nothing more is possible.

The most serious weakness in recently built residence halls is undoubtedly their noisiness. Sounds are carried from room to room and from floor to floor in maddening fashion. Complaints about noise top all others by a wide margin. Bathroom fixtures are rarely insulated sufficiently against sound transference to neighboring rooms. Corridors, utility rooms and other places where noise originates are likely to be constant sources of annoyance. Dishwashing activities too often are heard far beyond the kitchen.

Young people normally make a considerable amount of noise and when they congregate at meals or in social groups, the din is often great indeed. The means for sound absorption are well known. They should be applied more generally in college residence halls.

Lighting is better in new halls than in the older buildings but, by really modern standards, it is still far from

adequate in most student rooms. The least a college that professes interest in the physical welfare of its students can do is to provide a minimum of 250 watts of light per room, with an allowance of 25 foot-candles delivered in approved fashion to the surfaces of study tables.

Closet space and drawer space are inadequate in most halls. Students, particularly young women, have many possessions that need to be temporarily stored somewhere. Each student should have his own bookcase, his own study table with several drawers, a chest with at least four good sized drawers and a closet large enough to accommodate his clothes, a suitcase or two and the miscellaneous assortment of belongings that must be put away if a room is to have an orderly appearance and a restful atmosphere. Men's closets can be somewhat smaller but every hall for women should have closets at least 32 by 40 inches in size. If they can be 36 by 48 inches, they will be better still.

NO "PERFECT PLAN"

There is no "perfect plan" for a college residence hall any more than there is a perfect plan for a home. Each institution, like each family, has its own special needs. And individuality in halls is desirable to offset their institutional character and make them pleasant dwelling places. Certain features, however, are usually found in well planned buildings of this type:

1. The entrance halls have a hospitable atmosphere, with service and administrative features in convenient but not conspicuous locations.
2. Space allowances for social rooms are liberal in women's halls, averaging about 20 square feet per student. This provides for lounges, guest parlors, informal playrooms and small social rooms on upper floors for residents only. (Men's halls require less social space since men do not entertain to the extent and in the many ways that women do.)
3. Large dining rooms generate noise and fatigue and are, therefore, avoided in well planned buildings. Space allowances are from 10 to 12 square feet per person and all possible devices for sound absorption are used.
4. Student rooms are so placed as to receive a maximum amount of natural light and sunshine. They are of good size (120 square feet minimum for single rooms and 200 square feet for double rooms) and adequately equipped.
5. Since heads of residence halls usually live in them the year round, their quarters are complete with bedroom, private bath and sitting room. Since their work includes entertaining of students socially, they should have a kitchenette in addition. Their living quarters are, preferably, a little apart from student rooms.
6. Corridors, dining rooms and other centers in which noise creates problems are provided with sound absorbent ceilings, floor coverings and other means of reducing tension from this cause.

The foregoing are only a few of the factors that characterize a good hall. So many mechanical improvements are appearing from day to day that equipment needs cannot be foreseen more than a few years in advance. Well designed, gracious and adequate space allowances, however, are always "good."

SINGLE ROOMS FOR SKIDMORE GIRLS

1

LOUIS E. JALLADE

Architect, New York City

CONTAINING 63 SINGLE BEDROOMS AND 12 DOUBLE BEDROOMS, the new dormitory for Skidmore College will replace some of the existing nonfireproof residences temporarily converted into dormitories.

The single rooms are so planned that a unit will consist of two adjacent bedrooms and one dressing room, approximately 6 by 8 feet and containing a wash basin, dressing table, two medicine closets, ample mirrors and lights. Each bedroom will have its own coat closet, shoe racks, baggage closet and similar provisions and will have direct communication with the corridor and with the dressing room. It will be possible for the occupant of one room to use the dressing room without disturbing the girl in the other room. It may even be possible for two girls to sleep in one bedroom and use the other bedroom as a study.

BEDROOM ARRANGEMENT

The bedroom arrangement is simple: The window is placed directly in the center of the outer wall so that on one side of the window there is sufficient room for the bed and on the other side, ample room for the study table.

Among interesting features of the building plan is the provision of an alcove for faculty members in each of the two dining rooms. One of the dining rooms will accom-

modate students who live in the building and one, those who live in the adjacent dormitory without dining facilities.

Located between the two rooms will be the kitchen. Here plans call for keeping labor and upkeep to a minimum, even to the provision of electric eye door openers so that waitresses burdened with trays will not have to push doors. To eliminate the keeping of skis out in the weather, a ski room has been planned and there will be a bicycle room on the street level.

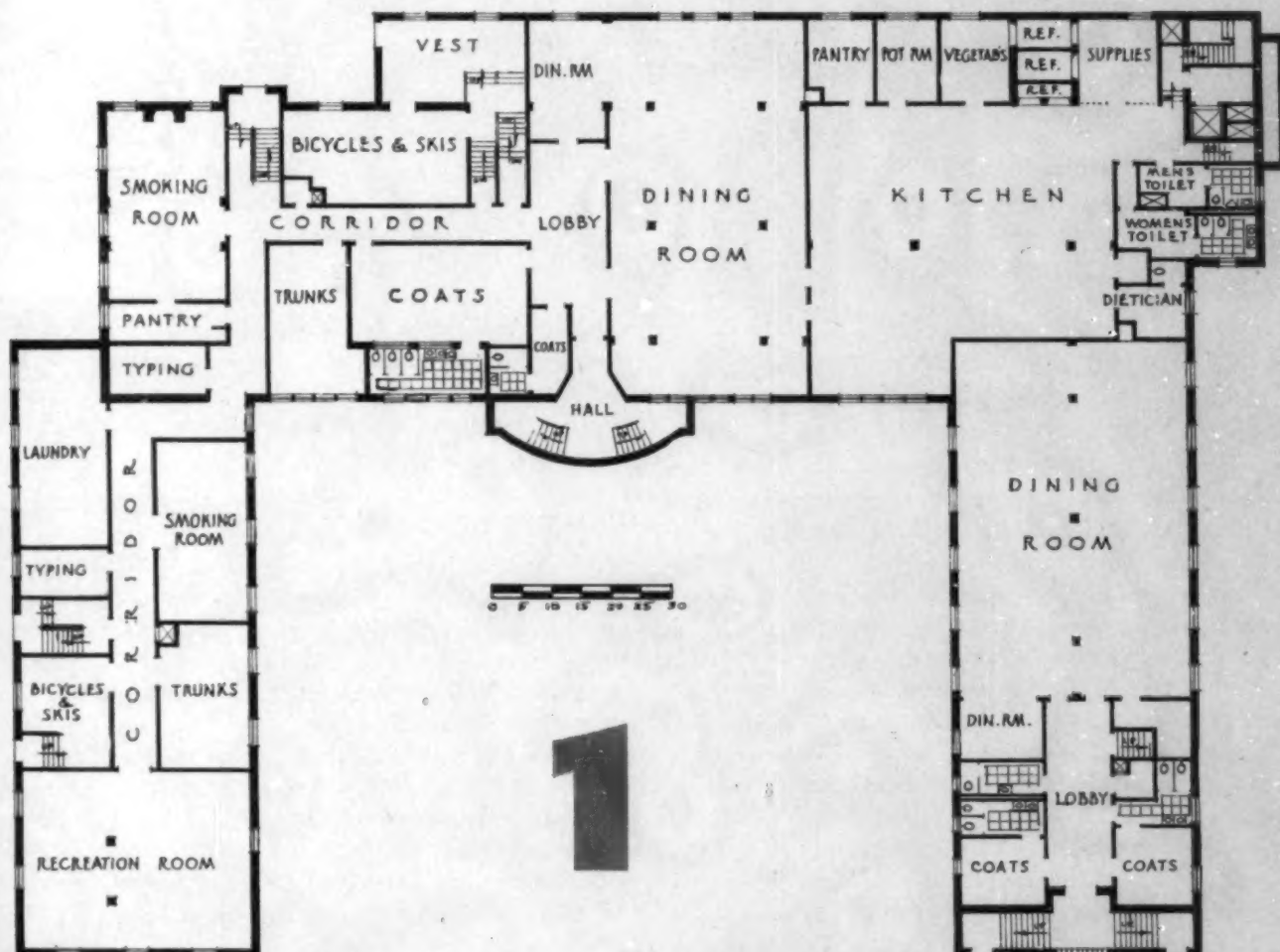
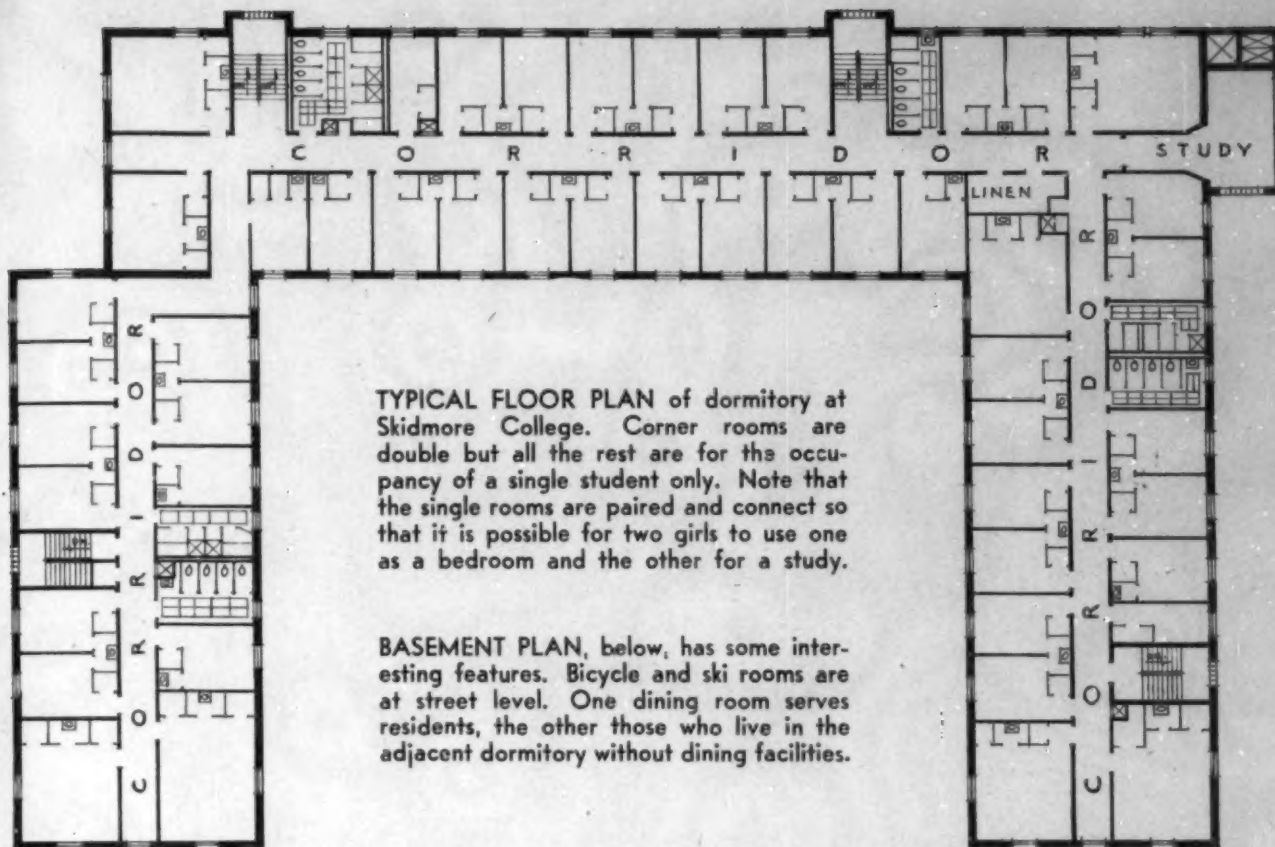
MODIFIED MODERN DESIGN

The type of architecture is modified modern. One of the underlying questions in the planning and construction of this building is that of materials. Although good materials are still difficult to obtain, careful selection is being emphasized in order to reduce to a minimum the cost of upkeep and the constant repairs and replacements that are expected to be necessary in some construction begun since the war.

Most of the building materials will not be of such high grade as they were before the war and some substitutions must still be made. Therefore, the architect must be on guard lest his client will later have breakdowns, repairs and replacements.

Seventy-five girls can be accommodated in the new dormitory at Skidmore College.







Men's dormitory group, University of Virginia

2 VIRGINIA ADHERES TO CLASSIC STYLE

EGGERS & HIGGINS and BASKERVILL & SON

Associated Architects

NEW BUILDINGS AT THE UNIVERSITY OF VIRGINIA FOLLOW the classic tradition initiated there by Thomas Jefferson and requested by the university authorities. They observe a symmetrical pattern as closely as possible in group layout and in individual building design. Construction is of red brick with stone and wood trim.

MEN'S DORMITORY GROUP

Nearly 1000 students are housed in the men's dormitory group which includes 24 separate dormitories and a large central dining hall. The dormitories are made up of four kinds of units which are grouped and connected by open loggias. The central structure is a dining hall accommodating 1000 men in two large rooms.

There are nine "single unit" dormitories, each accommodating 27 students. Excluding the basement, which has a lounge and three bedrooms, the "single unit" buildings are comprised of living room-bedroom suites of which there are four on each of the three floors.

Eight "two unit" dormitories house 55 students each. These "two unit" dormitories have two basement lounges, one at each end. Suites on the upper floors are reached by two main staircases.

Each of six "modified two unit" buildings houses 41 men and has six instead of eight suites on the three upper floors.

One "three unit" dormitory houses 66 students and includes double bedrooms on each floor as well as two room suites. In addition to the two lounges in the basement, there is a large conference room on the second floor. This building is served by three main staircases.

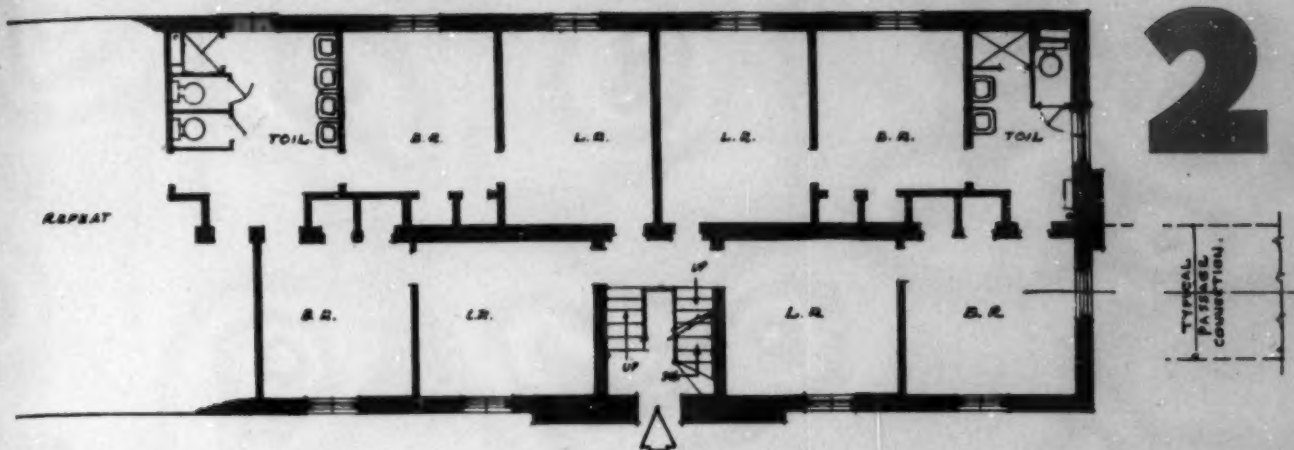
Because the site was a former golf course with rolling terrain in which there were changes of 60 feet at different elevations over the area, there was a special problem in the construction of the buildings in the men's dormitory group. The site of the women's dormitory, however, is more nearly level.

WOMEN'S DORMITORY

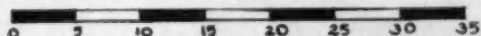
This building houses 121 students and includes a large recreation room in one wing of the basement. The basement has facilities also for day students, an apartment for the housekeeper and locker and sitting rooms for the help. The assembly room, which can be partitioned into smaller rooms, is in the basement, too.

The main floor has a lobby, reception room and several parlors. The head of house has an office and apartment here and the rest of the floor is divided into guest and student bedrooms.

The library is on the second floor and both the second and third floors have a common room, a laundry and a kitchen as well as bedrooms.



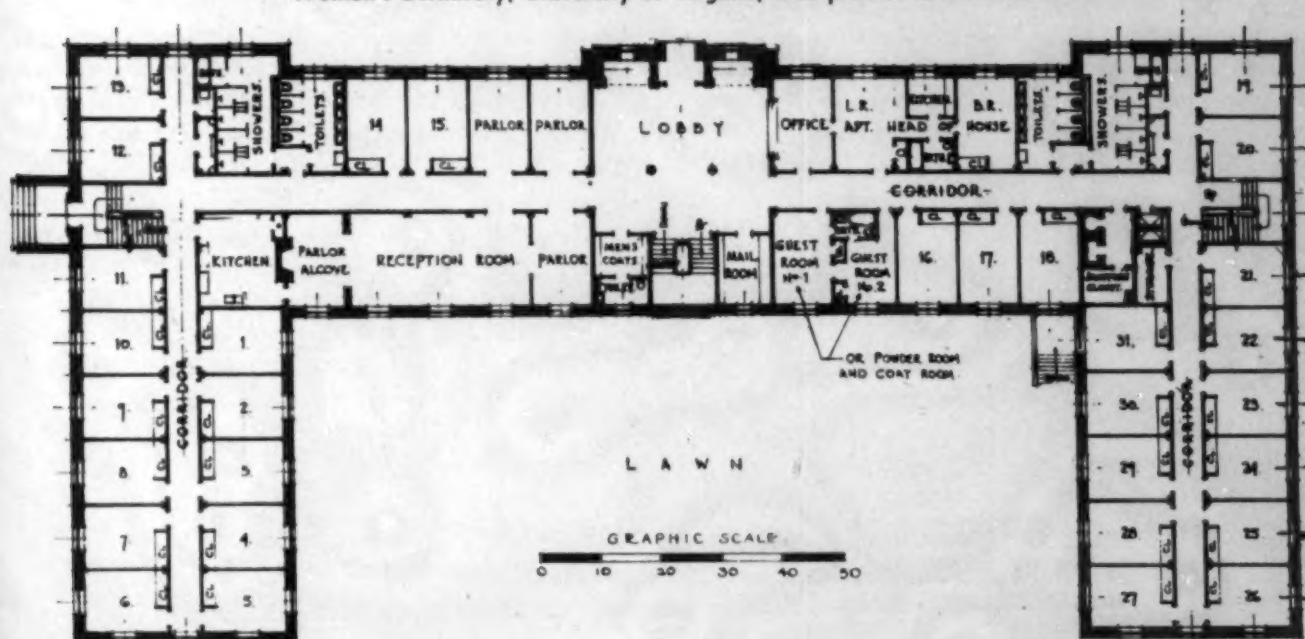
TWO UNIT DORMITORY
GRAPHIC SCALE

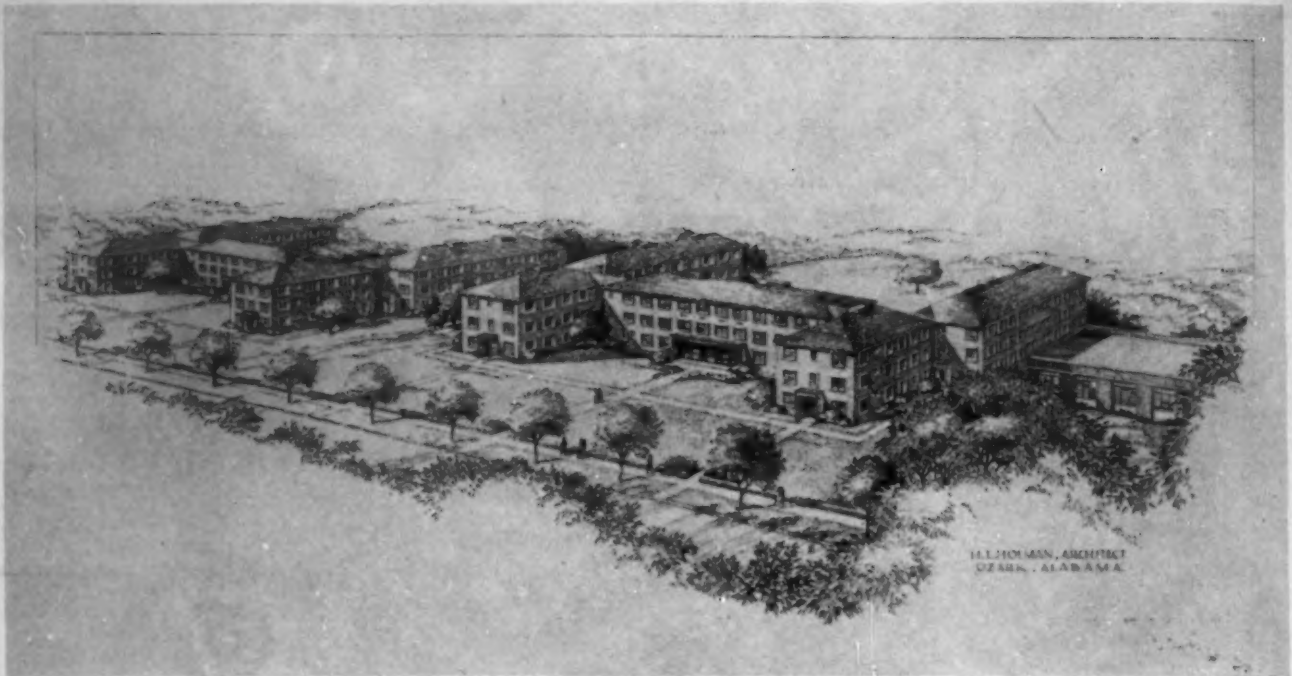


The men's dormitory group at Virginia has nine single unit, eight two unit, six modified two unit and one three unit dormitories. Half of the two unit plan is shown above. It has lounges at either end of the basement; a whole unit serves 55 students.



Women's dormitory, University of Virginia, with plan of first floor.





3

DOUBLE ROOMS FOR AUBURN MEN

SAM F. BREWSTER

Director, Department of Buildings and Grounds
Alabama Polytechnic Institute

THE DORMITORY NOW UNDER CONSTRUCTION AT ALABAMA Polytechnic Institute is costing in excess of \$1,000,000, complete with equipment, and will provide housing for 443 students. The modern fireproof structure has a ground floor and three additional floors with an attached one story kitchen and dining room.

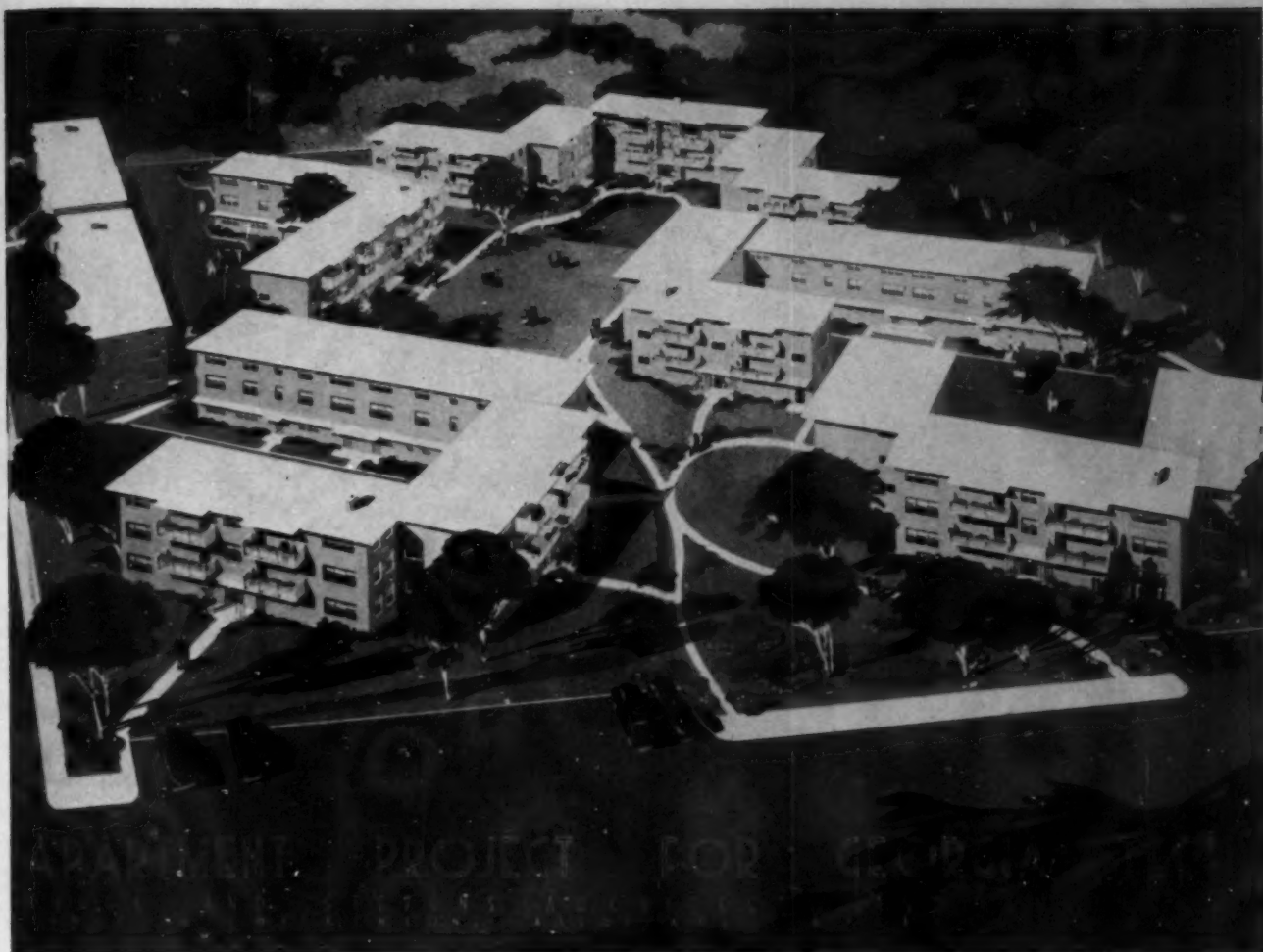
Construction is of hollow tile with a brick facing, with bar joist floor construction and a steel roof finished with asbestos shingles. All rooms, with the exception of the kitchen and baths which are to be of tile, have plaster walls and ceilings. The floors in all bedrooms, lounge, recreation and dining room are of asphalt tile; corridors, foyer and parlor, of rubber tile; kitchen and baths, of ceramic tile. The ceilings of lounges and dining room are treated with acoustical materials.

The front entrance of the building, opening into a foyer and parlor on the first floor, features structural glass and aluminum doors. The rear entrance leads into a combination lounge and lobby on the ground floor. The recreation and assembly rooms are on this floor also and they are accessible to the dining room.

STUDENT ACCOMMODATIONS

Student accommodations consist of 214 double bedrooms, two double bedrooms with private bath, four double bedrooms with semiprivate bath, three single bedrooms and 24 public baths. A manager's apartment, comprising two rooms and bath, and a matron's apartment of equal size are located on the first floor. The architect of the building is H. L. Holman of Ozark, Ala.





Apartment project for Georgia Tech. Burge and Stevens, Atlanta, architects.

DECENT HOUSING FOR MARRIED STUDENTS

4

HENRY L. KAMPHOEFNER

Professor of Architecture and
Architect on Campus Planning
University of Oklahoma

SEVERAL YEARS AGO AT A PLANNING CONFERENCE IN one of our large cities, a conservative real estate dealer was asked what he thought about the automobile problem. He replied that he guessed the automobile was here to stay. The married student may have to be around our campuses for about as long a time as the automobile has been around our cities before he will become accepted as a reality.

The high percentage of married students now in the universities will decrease, of course, after the backlog of veterans has found an institution of higher learning to their liking and with adequate living accommodations. The average enrollment of married students in the large state universities is now approximately 24 per cent. If that figure declines to as much as 10 per cent in ten years, however, a state university of 10,000 will still need adequate housing for 1000 married students.

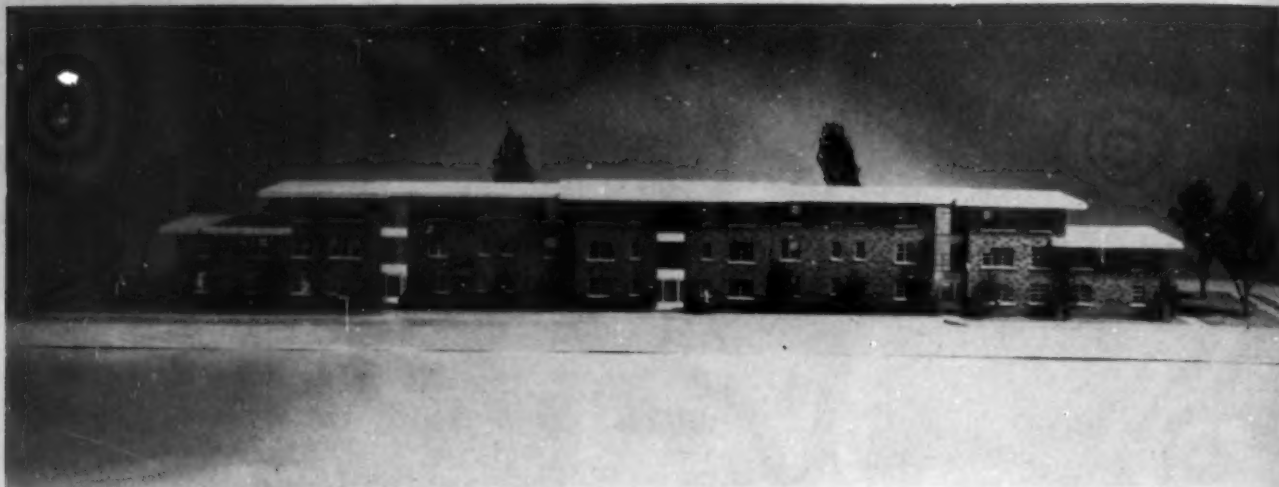
The schools knew the married student would descend on them after the war. The G.I. Bill of Rights had been passed long enough in advance to give proper warning but planning was mainly too little and too late.

The universities have always had the problem of providing housing for married students, especially at the grad-

uate level. Because nothing was done to accommodate them in decent shelter, they had to take care of themselves and their families in the best facilities that could be found in the college community. The city universities, for that reason, provided the greatest number of possibilities for the married student and that factor has been contributory to the building up of graduate work in the large cities.

At colleges located in smaller communities, there has always been a householders' association, a real estate league or some such organization whose chief purpose has been to protect the inadequate facilities they force the married students to accept as shelter. These self protective associations proved to be the first ones to sell out the universities during and after the war when service families brought them higher rentals than they could get from the students. So legislation for good housing has been frustrated by selfish interests.

Because of lack of long range planning in colleges, the expedient of temporary housing has been resorted to al-



4

ABOVE: Model study of married students' apartments at State University of Iowa. University Division of Planning and Construction, architects. **LOWER RIGHT:** Unit of two family row houses at Purdue. Walter Scholer, architect.

most universally. Less than two years ago the Association of Superintendents of Buildings and Grounds of Universities and Colleges solemnly voted to have nothing at all to do with temporary housing. A year later its members met again and took stock. In that short year they had all been party to one of the greatest orgies of slum building that the country, and certainly the campuses, had ever seen. They built trailer towns, prefabricated cities, homolas, hutments, boxments, nissens, quonsets and the greatest conglomeration of architectural abortions and monstrosities since the days of Georgiannesque and Gothicistic building on the campuses.

The great expedient of temporary housing has made no one happy. It is true that it has jam-packed a few more unhappy veterans and their wives and babies on the campuses where teaching and classroom facilities were already inadequate; the housing, by the large, for married students has been substandard and subminimum according to almost any criteria a young couple in search of an education could set up.

While most of the nation's colleges and universities have made no more than temporary arrangements for the married student, a few schools have started long range programs and some positive action has been accomplished.

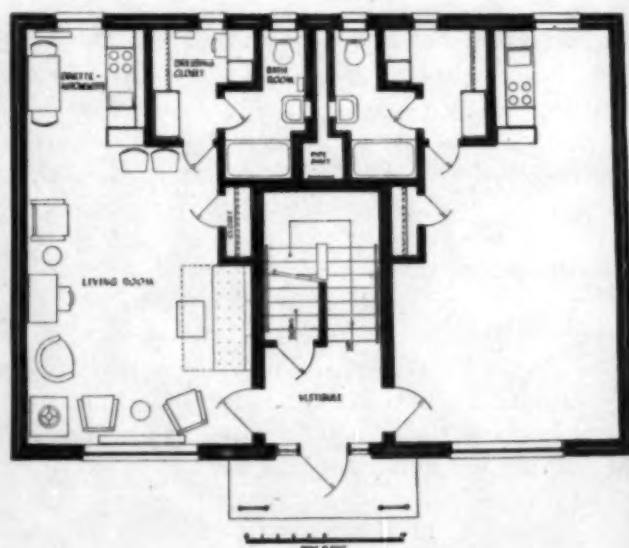
The illustration at the top of this page shows a model study made in the division of planning and construction at the University of Iowa where a serious attempt is being made to provide permanent shelter for the married student. Bids on this project were taken last spring but, since the costs were found to be excessive, it has been put aside until this spring when bids will be taken again.

Building costs are continuing in the upward spiral and many colleges are finding it impossible to let construction contracts on this type of building on a self liquidating basis even with a long term amortization period. The University of Iowa may find construction costs still too

high to build its project without the aid of state or federal subsidization. Apartments that were built before the war, and rented for \$35 a month, now cost at least double that amount of money to build. If they must be self liquidating, the only solution is doubling the rental or subsidization. Subsidization, of course, brings the familiar Macedonian cry from the real estate interests but the student obviously cannot pay \$70 a month for the same apartment that he could have rented before the war for \$35.

Throughout the country a number of fine projects to house the married student are under way but there is not space in this article to tell about them all. Plans are in progress for a noteworthy project at the University of Wisconsin under the direction of Architect A. F. Gallistel. A group of well designed buildings will be placed on a high piece of ground on the extremity of the campus overlooking the lake.

Plans worthy of mention are underway also at the Georgia School of Technology. The illustration on page 11 shows a rendered drawing from the office of Burge and Stevens, Atlanta architects. It is one of two projects planned for just off the campus and will house 222 families. The project shown here consists of seven three story buildings in an informal and pleasant grouping.



RIGHT: Typical living unit for row house at the University of Oklahoma. This plan provides minimum, not ideal, housing for six to eight families in each block of houses. Developed by campus planning office of university architects.

4

Near by will be an eight story building. The planning has been carefully studied with admission that there are some important and unique needs for this type of apartment tenant. The architecture is simple and altogether suited to the economics of the project.

Both projects will be financed by a \$4,000,000 bond issue which, it is hoped, will cover the cost without additional subsidization.

Too many of the projects under construction on the campuses of the country are below the minimum in meeting the needs of the married student. Lack of nursery space is the most vital factor. It is easy to say that the student should not have children until after graduation. Perhaps it would be more logical to deny him marriage until after graduation. The fact that he is married and an apartment for him provides a bed usually presupposes a baby in the natural course of events.

The apartments at Purdue University by Architect Walter Scholer, as shown at the bottom of page 12, are close to minimum housing for the married student and it would be impossible for the student and father to develop satisfactory study habits at home unless the tiny dressing room could be used as a nursery.

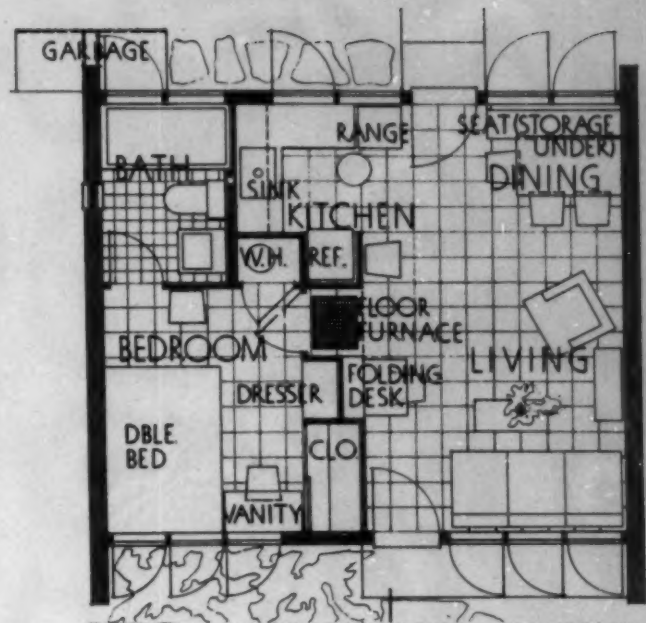
About half the married students have a child or the wife is pregnant or children are integral with all plans for the future. On one campus the trailer town provided for the married students has been aptly named Fertile Valley.

The living unit shown on this page was developed two years ago by the campus planning office of the architects at the University of Oklahoma. It resulted from a thorough research into students' housing problems with constant attention given to the unique needs of the married student. It is *minimum* housing for the married student and in no sense of the word is it *ideal*. By careful study and planning the complete unit is compact to a point near the ultimate in space economy and living efficiency.

ROW HOUSE PLAN

The plan of the Oklahoma apartment was to be one unit in a row house of six to eight families. Storage and laundry facilities were to be provided at the end of each block of houses. Fifteen buildings were planned for the project of 96 families. The apartments would have had to be rented for \$30 a month furnished with utilities paid to fit into the budget of the average married student.

By the time the project was ready to be put on the market for bids, inflated building costs forced the monthly rental to about \$42 if the project was to be amortized over a twenty year period. The choice had to be made between raising of rentals from \$30 to \$42, state subsidization of the project and abandonment in favor of a



less desirable and below minimum project. The decision was made in favor of the third.

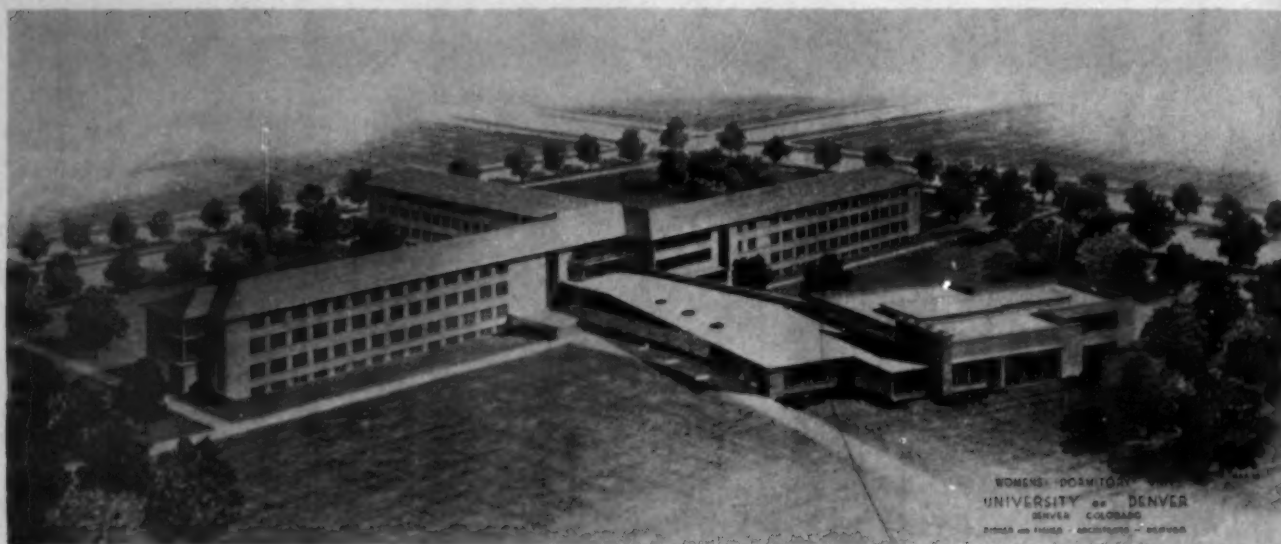
Even though the project has been abandoned, the plan has enough merit for discussion and brief analysis in this article. It should be emphasized again that the architects and all of those most interested in student affairs considered the plan not ideal but minimum. The project was well placed in relation to the campus at its southern edge on a site that rolls off gently to the south. All 96 apartments were oriented toward the south-southwest, the direction of 80 per cent of the summer breeze. Simple wooden suntraps were designed over the glass area on the south to exclude the sun in summer and to admit it in the winter to supplement the simple heating systems.

Living, dining and kitchen areas are in one general space but worked out in such a way that activity in each area could be carried on without disturbing activity in other areas. The kitchen and bath are on the north as natural ventilation of the apartment moves from the south through the apartment and out at the north.

To those who have a child during the possible four year occupancy of the apartment, the bedroom can be used as a nursery. The large sofa in the living room can be used by the couple as a bed, and ventilation for both areas is good. The bedroom is minimum but, because of careful integration of all the furniture into one coordinated design, the space is adequate.

All of the amenities of living, eating, sleeping and study have been carefully considered. The project has been receiving constant professional recognition from architects and housing authorities and has been considered as a model for study on many campuses.

Serious surveys indicate that the married student is on the campus to stay. His problem should now be receiving careful and thoughtful consideration from college and university administrations and the study should be placed in the hands of competent analysts and planners.



5 CROSS PLAN SELECTED FOR DENVER

H. C. TOLL
Assistant to Director of Planning

WITH THE REALIZATION OF \$2,000,000 TOWARD ITS eight year goal of \$15,000,000, one of the first buildings projected for the University of Denver in its expansion program is a new women's dormitory.

SITE

The University of Denver is fortunate in having an extremely beautiful campus site, a hill with a gentle slope to the west and a 200 mile view of the Rocky Mountains. The library with its tower dominates the crest of the hill along which the campus spreads. The new women's dormitory is located at the bottom of the hill separated from the library by a sweeping lawn. Because the view of the mountains from the library terrace is across the roof of the new dormitory it was felt that the dark color and texture of built up roofing would not fit well into such an awe inspiring panorama so a pitched roof with lighter colored materials was chosen to give more pleasing appearance. The program for this new dormitory was prepared by Gladys Bell, dean of women, and carefully adhered to.

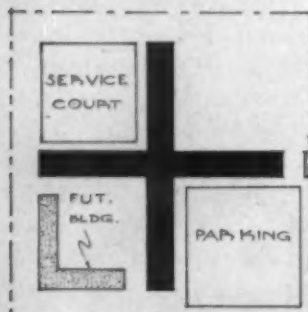
The plan shows three wings of sleeping units at 90 degrees to each other, with the fourth wing housing all the social and dining rooms and the service facilities.

Analysis shows the cross plan to be the best and most efficient form for a women's dormitory. Ease of control is one of the important factors and in a cross plan the entrance and exit at the center give easy supervision. The house director's quarters and those of each corridor supervisor, together with the lounges, are grouped around the stair well at the intersection to form a vertical core for circulation and control.

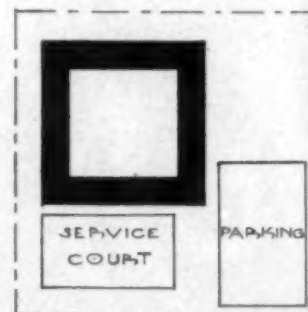
This type of cross plan provides the easiest possible intercommunication among all the girls living in the dormitory. In a quadrangular form with divided separate entries, control is distributed among several points and there is a tendency for the girls to split into groups.

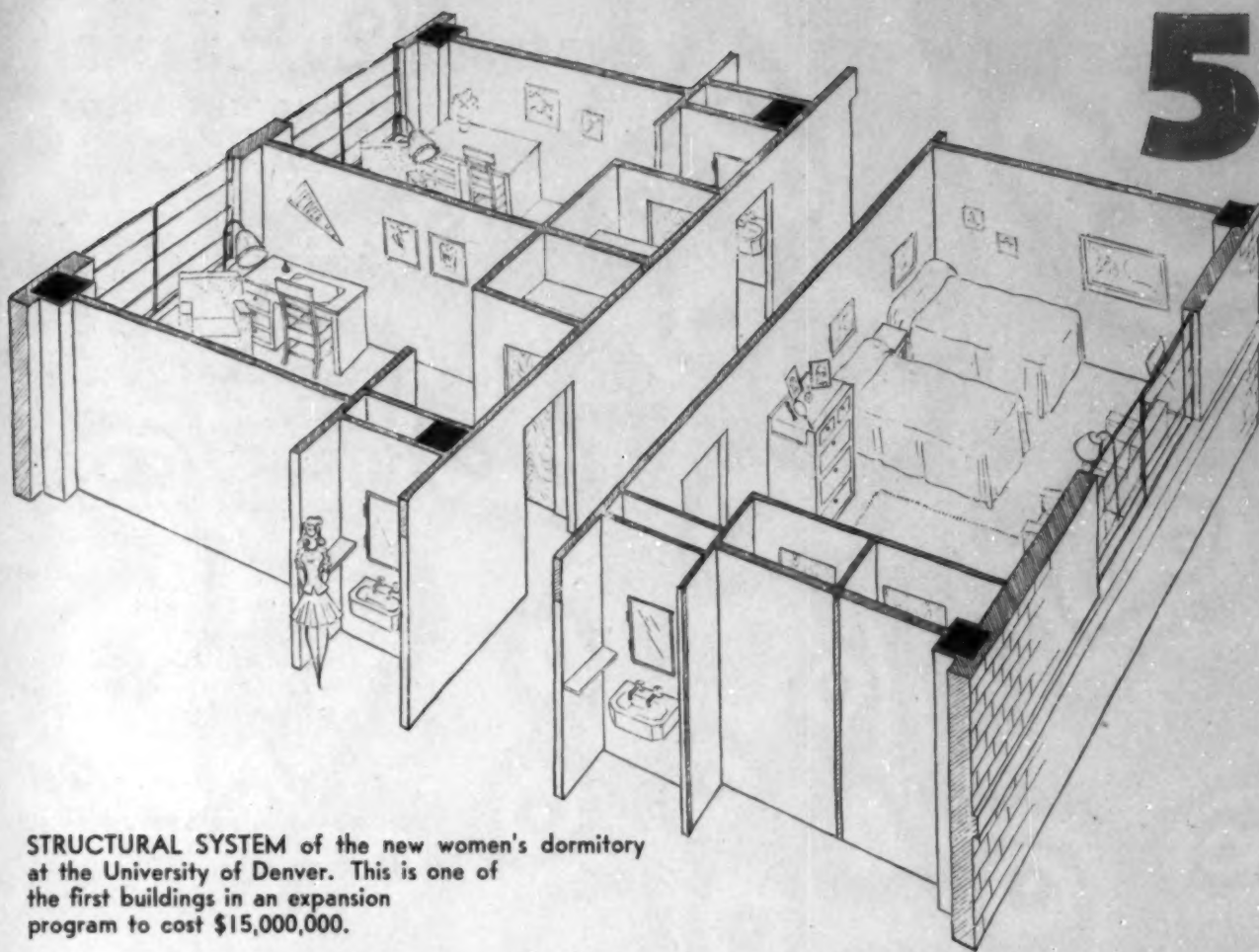
The area of floor space in a cross is exactly the same as in a quadrangle but there are no cramped awkward rooms formed by the reentrant angles of an open square plan. Every room on the cross plan is an outside room, sharing equally in the sun, view and breezes.

Because of its extended shape, a cross plan appears to require a larger lot than does a square plan. The service court, parking lot and similar areas, however, can be worked in among the wings of a cross plan easily while they must be placed outside of a quadrangular plan, building up the



The diagrams demonstrate the relative land occupancy characteristics of the cross plan and the hollow square. It will be noted that the coverage of the two building types is the same although the length of the cross is, of course, double that of the square. Fisher and Fisher of Denver are the architects for the women's dormitory.





STRUCTURAL SYSTEM of the new women's dormitory at the University of Denver. This is one of the first buildings in an expansion program to cost \$15,000,000.

required area to approximately equal that of the lot for a cross plan. The diagrams on page 14 illustrate this point.

The cross plan integrates much more easily with surrounding structures. A quadrangle seems to require a large open area surrounding it, whereas other buildings can be butted up close to the ends of a wing of a cross plan. Moreover, L-shaped buildings can be used in conjunction with a cross on the same sized lot.

STRUCTURE

To maintain harmony with the library, the same materials have been used in the new dormitory: brick curtain walls with long horizontal bands of concrete at window heads and sills. In the supporting framework an interesting variation has been introduced. Instead of the usual arrangement with exterior supports and an interior double row of columns defining the corridor down the center of the building, this dormitory has only a single row of interior supports with each double room turned parallel to the exterior walls and two single rooms perpendicular to the opposite exterior wall. Thus the corridor space is off center in the building and a square bay is formed, a unit that can be repeated to give great structural simplicity.

Ninety-nine square feet are provided in each single room and 184 square feet in each double room; thereby is avoided the common mistake of making double rooms only slightly larger than single rooms with consequent crowd-

ing. In addition to this space, each room is provided with ample closet space and a wash basin and medicine cabinet. Built-in furniture is omitted to allow the occupant to arrange the furniture to her own taste.

DESIGN

Each floor of each wing houses 25 girls: 13 single rooms and six double rooms to meet the recommendation of the building committee that the number housed in double rooms be from a third to a half of the total number. Each corridor provides quarters for a graduate student who will direct the activities and interrelations of this group of 25 girls. It provides also a lounge with kitchenette attached for get-togethers. Each corridor is provided, too, with a small laundry.

Public rooms are separated from the main mass and are of a different character to gain attention. The dining area can be broken up into three separate rooms to avoid the feeling of a large crowd which a dormitory housing 225 girls can induce. A spacious drawing room and a small quiet library provide space to suit varying moods. Quarters for a night matron at the main entrance facilitate twenty-four hour operation. A glazed loggia and terrace overlook the lawn which sweeps up the hill to the library.

The University of Denver is proud of its new dormitory in that it has not confused minimum standards with optimum standards. It provides a commodious, comfortable and cheery place in which girls can live and study.

SEVEN UNITS IN VANDERBILT QUADRANGLE

6

GERALD D. HENDERSON

Business Manager
Vanderbilt University



STUDENT'S ROOM

CONSTRUCTION DETAILS

GENERAL DATA: Seven men's dormitories; 106 to 120 occupants for each building; total, 750 students.

CONSTRUCTION: Fireproof; brick exterior; masonry interior partitions.

FLOORING: Reinforced concrete with asphalt tile covering.

WALLS: Plaster type.

CEILINGS: Acoustical treatment in halls.
HEATING: Central steam from campus power plant.

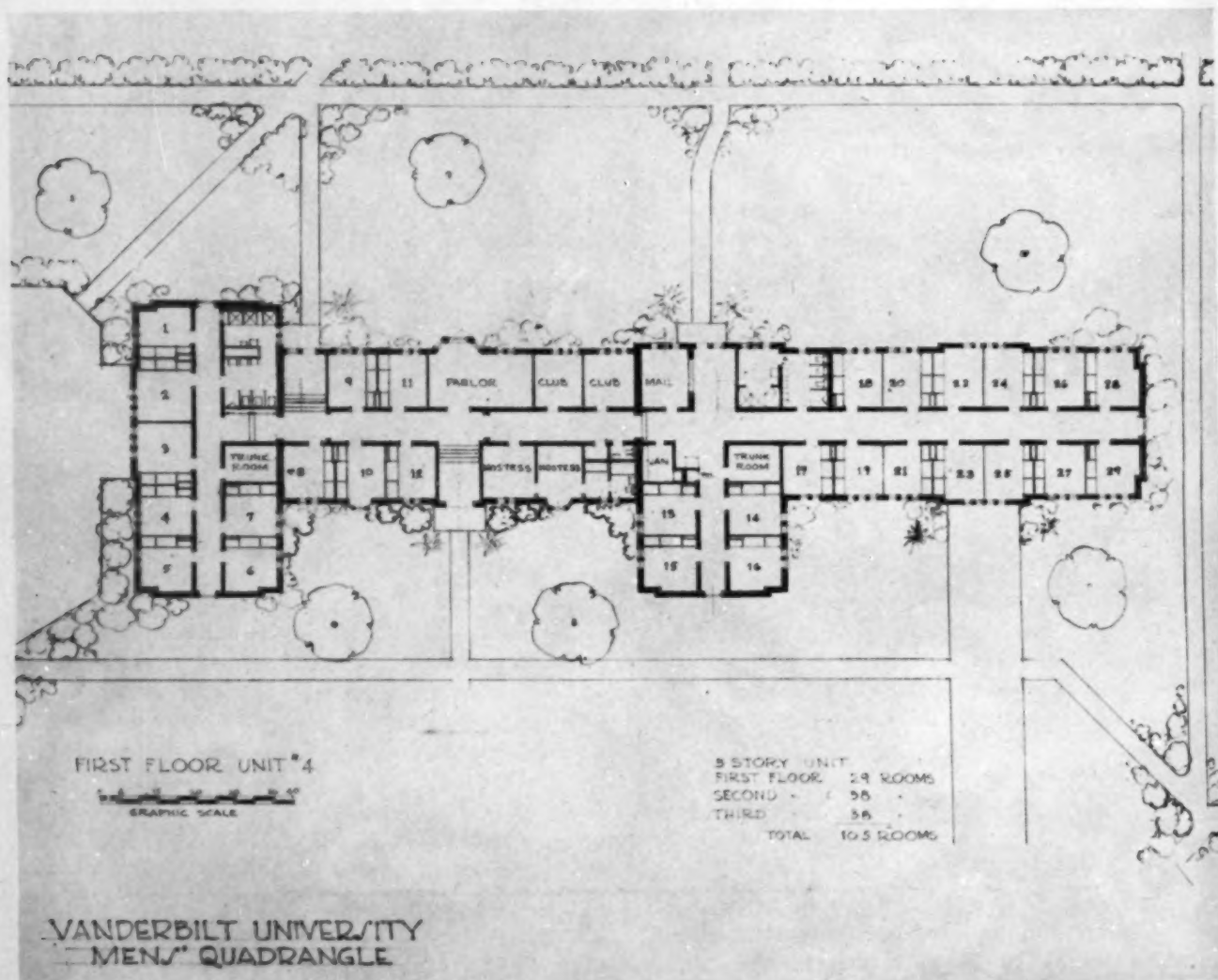
VENTILATION AND AIR CONDITIONING: Forced air ventilation; no refrigeration.

LIGHTING: Fluorescent.

CALL SYSTEMS: Double call system.

SPECIAL FEATURES: Living quarters for residence hall supervisor in each building; common dining hall in one building.

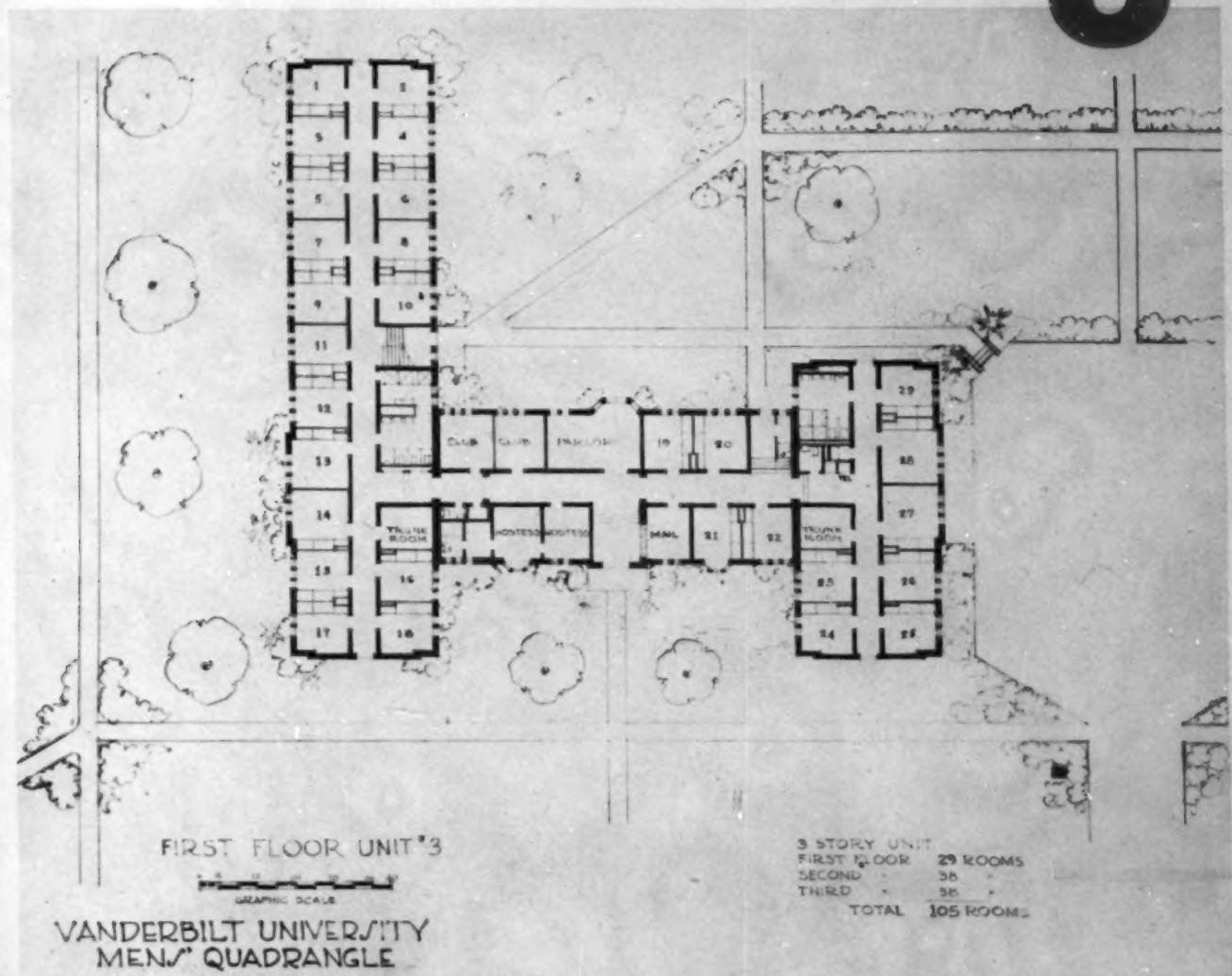
ARCHITECTS: Francis B. Warfield and Associates, Nashville, Tenn.





VANDERBILT UNIVERSITY
MENS' QUADRANGLE

6



UNIQUE FEATURES FOR LUTHER GIRLS

CHARLES ALTFILLISCH

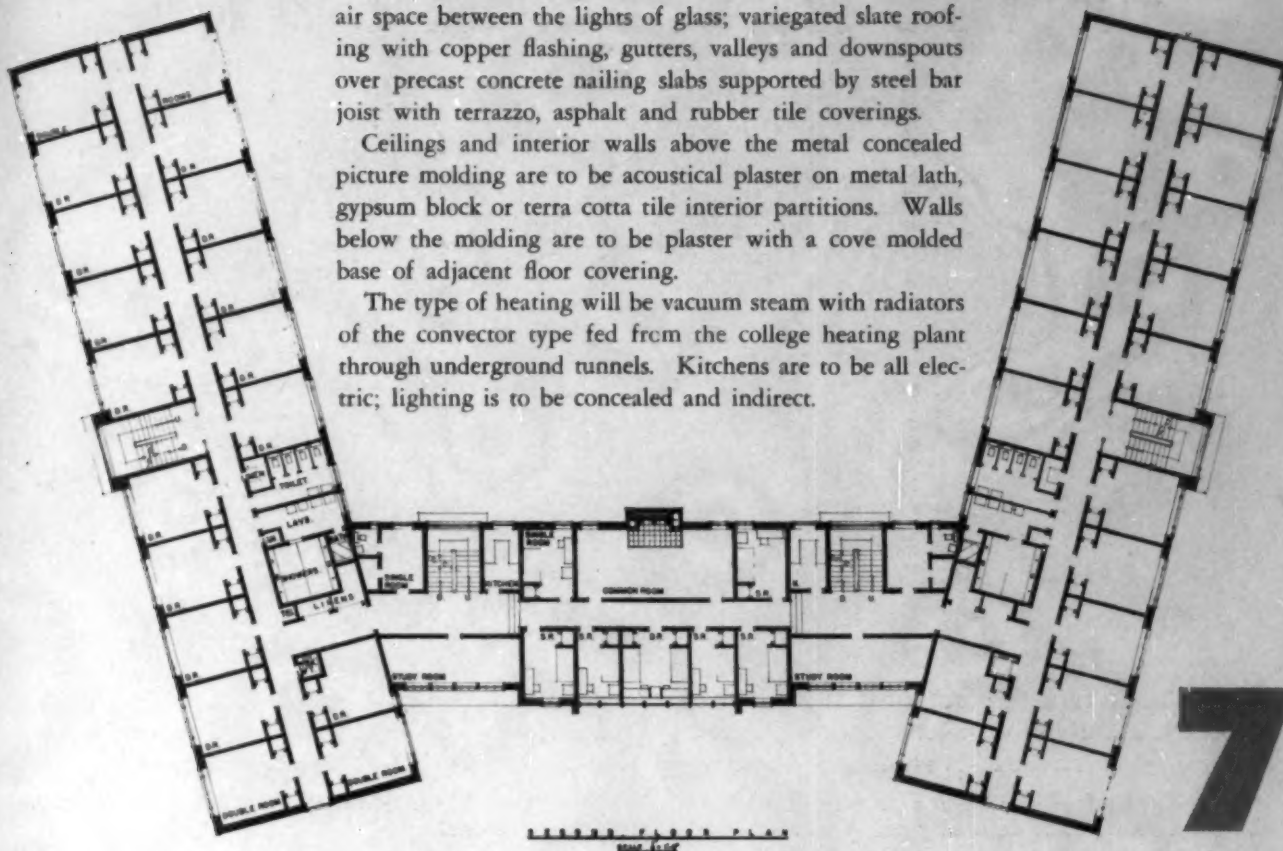
Architect, Decorah, Iowa



THE NEW WOMEN'S DORMITORY FOR LUTHER COLLEGE at Decorah, Iowa, containing approximately 804,000 cubic feet, will house a maximum of 288 women. The structure will be as nearly fireproof as a building can be.

The general construction will include brick and stone veneer exterior walls, with terra cotta tile back-up resting on reinforced concrete foundations; aluminum exterior sash; doors with double thickness of glass having a sealed





air space between the lights of glass; variegated slate roofing with copper flashing, gutters, valleys and downspouts over precast concrete nailing slabs supported by steel bar joist with terrazzo, asphalt and rubber tile coverings.

Ceilings and interior walls above the metal concealed picture molding are to be acoustical plaster on metal lath, gypsum block or terra cotta tile interior partitions. Walls below the molding are to be plaster with a cove molded base of adjacent floor covering.

The type of heating will be vacuum steam with radiators of the convector type fed from the college heating plant through underground tunnels. Kitchens are to be all electric; lighting is to be concealed and indirect.

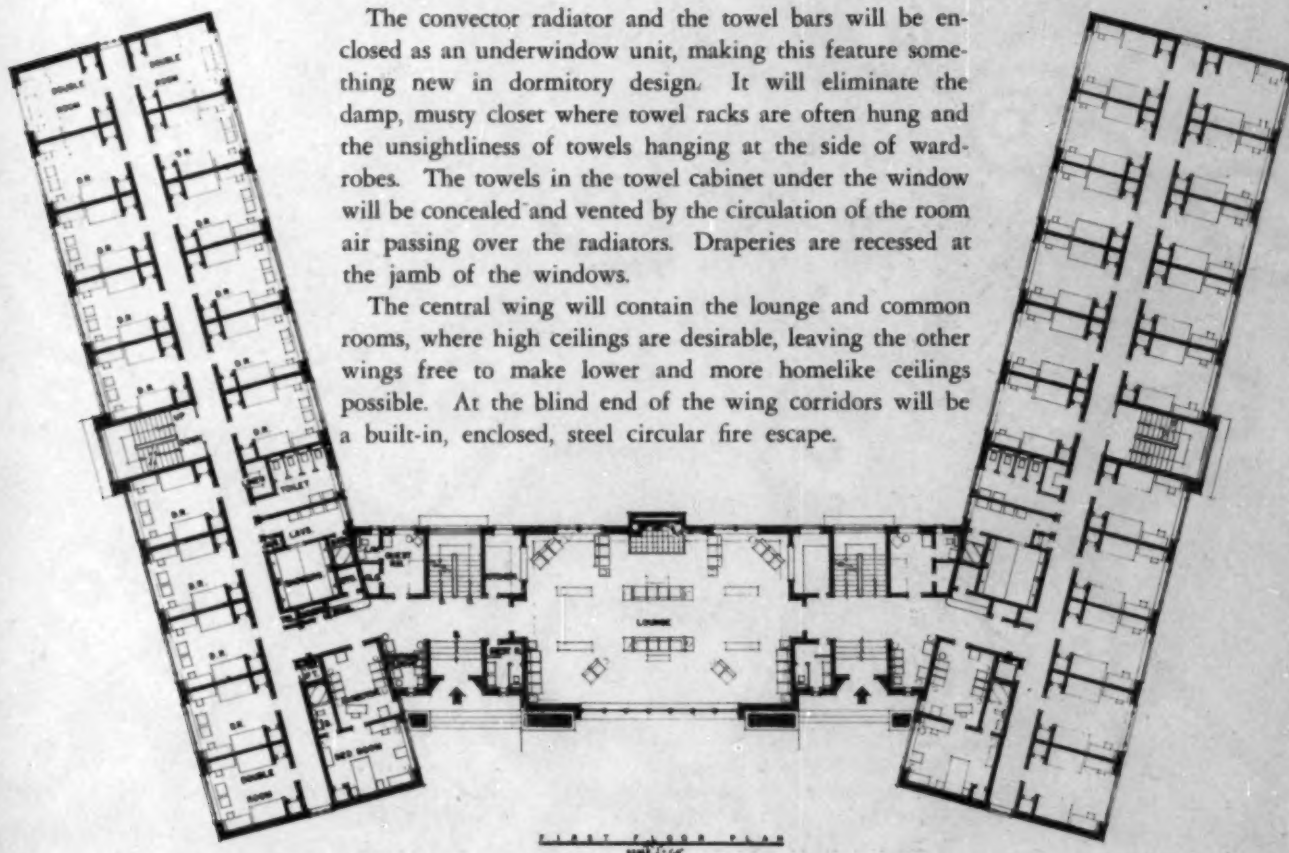
Two hydraulic trunk lifts will serve the two wings from third floor to the basement trunk storage room.

Interior trim is to be metal and the doors, of wood, are to be a vented flush type. The typical dormitory rooms

will have picture windows 5 feet 6 inches by 9 feet 6 inches with ventilating casements at either end, a chiffo-desk and a private closet for each occupant. The chiffo-desk will serve as a vanity, wardrobe and desk.

The convector radiator and the towel bars will be enclosed as an underwindow unit, making this feature something new in dormitory design. It will eliminate the damp, musty closet where towel racks are often hung and the unsightliness of towels hanging at the side of wardrobes. The towels in the towel cabinet under the window will be concealed and vented by the circulation of the room air passing over the radiators. Draperies are recessed at the jamb of the windows.

The central wing will contain the lounge and common rooms, where high ceilings are desirable, leaving the other wings free to make lower and more homelike ceilings possible. At the blind end of the wing corridors will be a built-in, enclosed, steel circular fire escape.

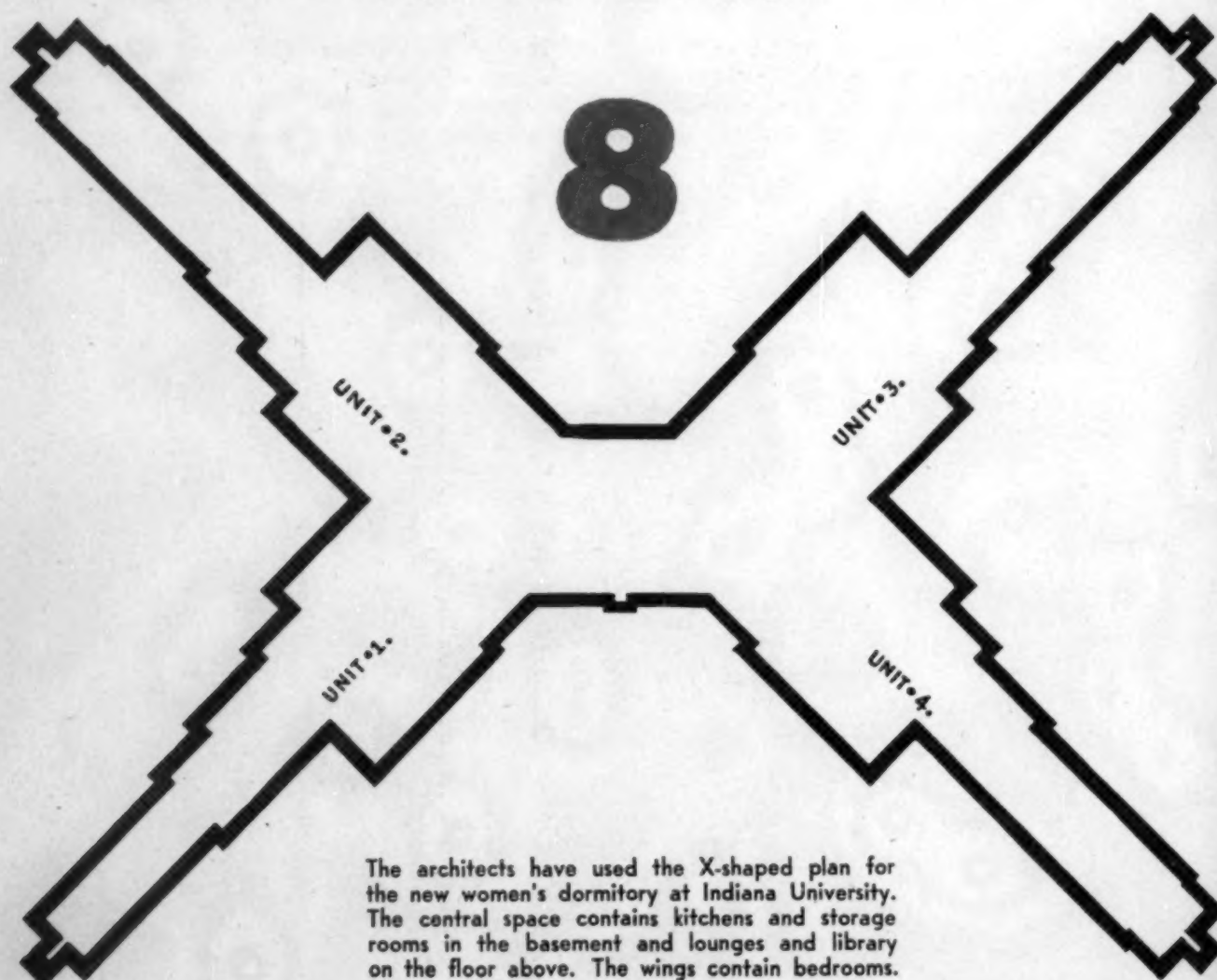


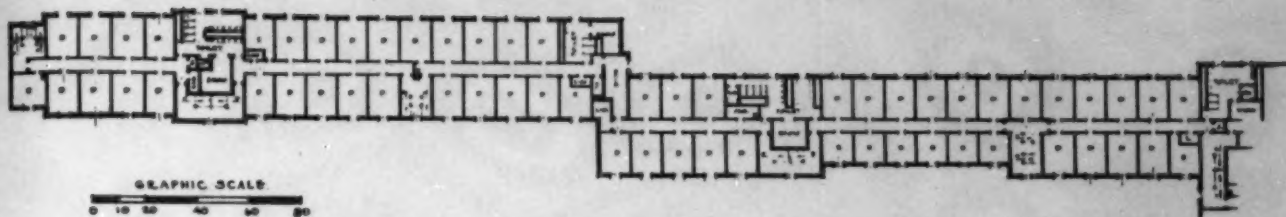
THOUSAND STUDENTS UNDER ONE ROOF



INDIANA UNIVERSITY'S NEW DORMITORIES ARE THE RESULT of a careful study of the most efficient way to house a large number of students. The best plan to take care of 1000 people, it was decided, is to put them under one roof. As a result, each dormitory group is made up of

connecting units which, in appearance, form one building. The architecture follows no traditional pattern; it represents the solution of a particular problem and its style is indigenous to itself. Construction is of random coursed Indiana limestone.





EGGERS AND HIGGINS

Supervising Architects
New York City

BURNS AND JAMES

Architects, Indianapolis

8

The men's dormitory is H-shaped and, like the women's residence, is of Indiana limestone. Each group of rooms accommodates 50 students and has a separate entrance, lounge and sun deck. Each group of 250 students has a game room in the basement. The central building, a dining hall, seats 1000.

WOMEN'S DORMITORY

The plan of the women's dormitory, which accommodates 1000 students, is based on a central kitchen unit that serves dining halls in each of four wings extending at 45 degrees from the center. An X-shaped floor plan results. The basement space made up by the four units (wings) other than the center unit, which is occupied by the kitchen and kitchen supply and storage rooms, is divided into recreation rooms, of which there are two, laundries, supply rooms, facilities for employes and a repair shop. The six floors above the basement are essentially the same in the four units.

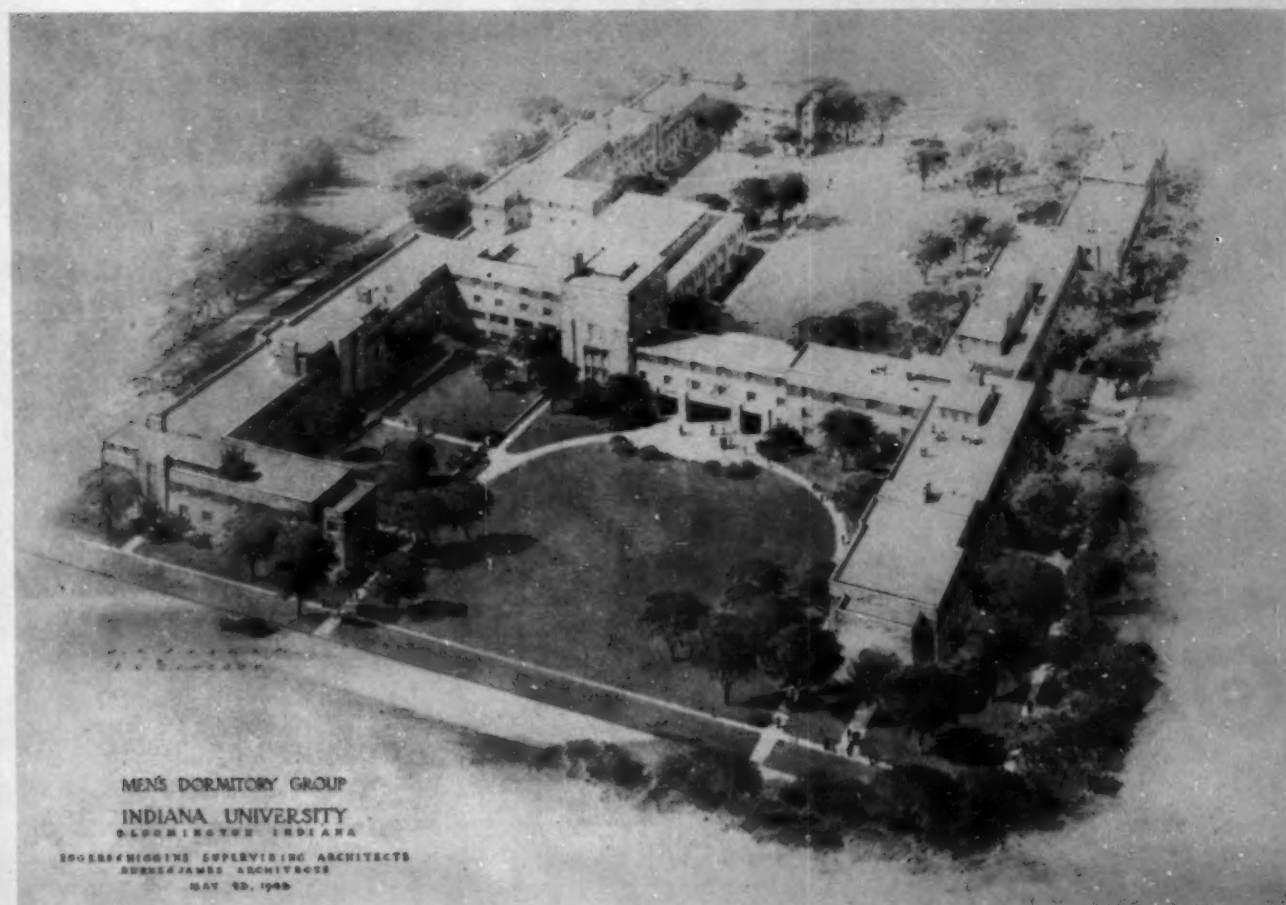
On the second floor, two lounges open into either end of a library in the center unit and the rest of that floor and the four floors above are divided into single and double bedrooms, each of which has immediate access to

a lavatory. The sixth floor has fewer bedrooms because almost half of each wing is devoted to a spacious sundeck.

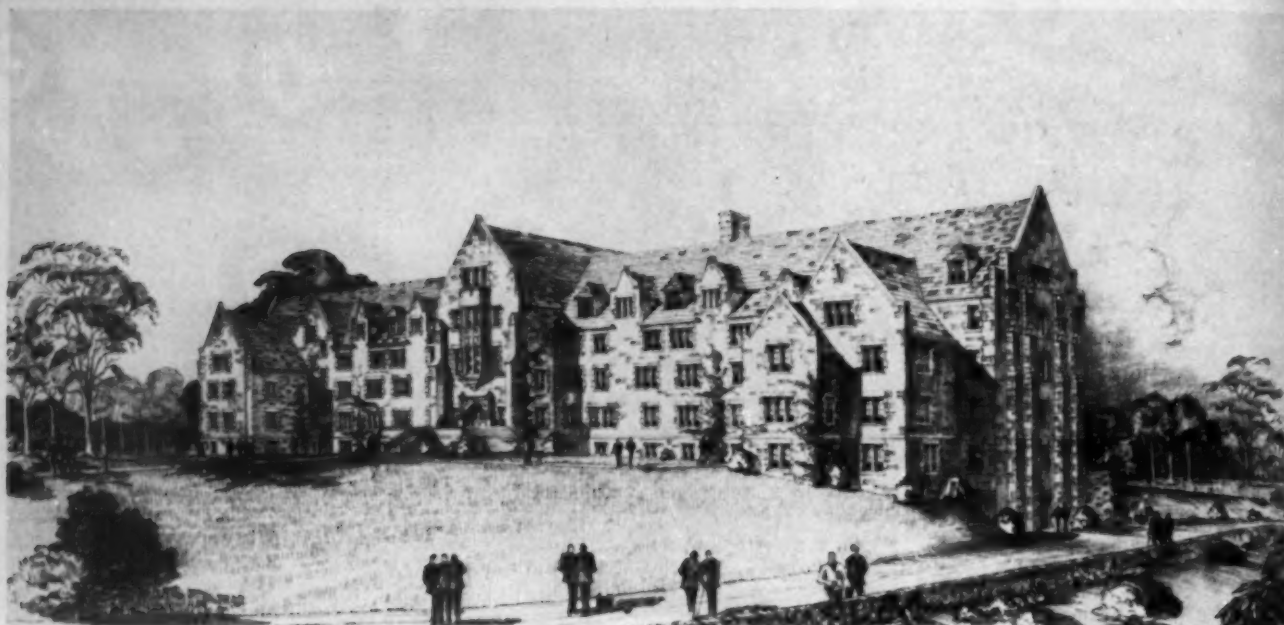
MEN'S DORMITORY GROUP

The men's dormitory group, housing another 1000 students, gains in ground what it loses in height. Three stories are maintained throughout but, because the terrain of the site is uneven, the building steps up or down at certain points to accommodate the three floors.

There are four main dormitory units but each is divided into smaller units by separate entries and fireproof doors at suitable points along the corridors. In each unit the housemaster has a suite in the basement and the three upper floors are divided into single and double bedrooms. The roofs of the dormitories are used as decks; lounges form penthouses for each unit.



MEN'S DORMITORY GROUP
INDIANA UNIVERSITY
BLOOMINGTON, INDIANA
EGGERS & HIGGINS SUPERVISING ARCHITECTS
BURNS & JAMES ARCHITECTS
MAY 20, 1948



9 HILLTOP SITE FOR ST. OLAF MEN'S HALL

A. O. LEE

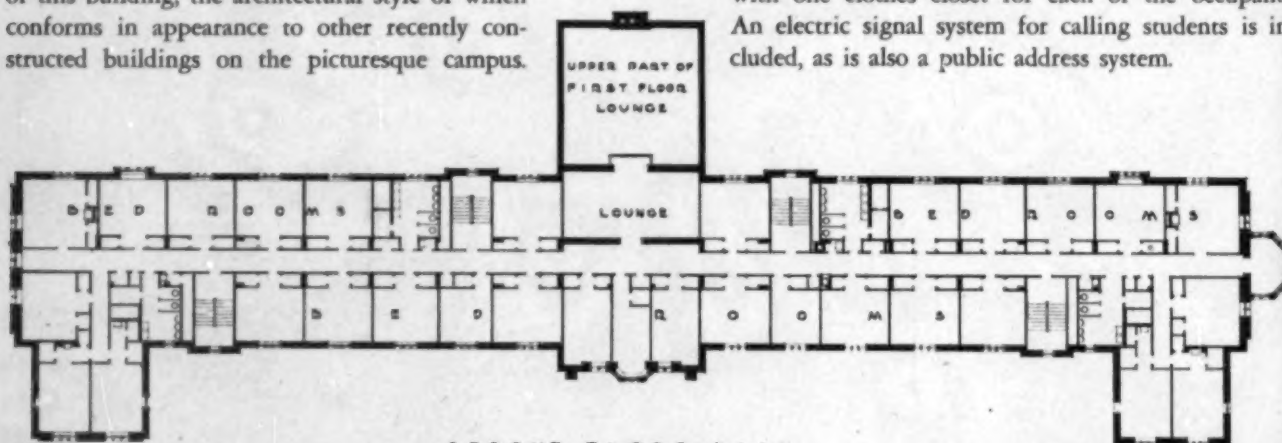
Business Manager, St. Olaf College

AS A RESULT OF THE GENEROSITY OF THE LATE HARALD Thorson, one of the founders of St. Olaf College and a former merchant at Northfield, Minn., 212 men students are now seeing campus life at this midwest institution through the Norman Gothic windows of its brand new dormitory. Known as Harald Thorson Hall, the building is a four story structure, 285 feet in length; in addition to the student quarters, there are apartments for the resident head and for the custodians. The architectural firm of Lang and Raugland, Minneapolis, planned the building, the cost of which exceeded \$500,000.

Thorson Hall is located at the northeast edge of the campus on a hill overlooking the college athletic field. Rice County limestone has been used in the construction of this building, the architectural style of which conforms in appearance to other recently constructed buildings on the picturesque campus.

The main entrance faces west. Beneath the east entrance, which extends considerably beyond the natural width of the building, are two spacious lounges with built-in fireplaces. Adjacent to the main lounge is a library. Space has been planned also for a small chapel on the top floor for use of students in the dormitory. The south end of the building has an interesting glassed-in bay which runs the entire height of the building and overlooks the athletic field.

Each of the four floors is divided into three units supplied with bath and toilet facilities; student rooms in the end wings have individual lavatories. Most of the rooms accommodate two students; some are single rooms and a few are large enough for three. All rooms are provided with one clothes closet for each of the occupants. An electric signal system for calling students is included, as is also a public address system.



SECOND FLOOR PLAN

31 BED ROOMS
50 STUDENTS

WHAT KIND OF DORMITORY FURNITURE?

WILLARD J. BUNTAIN

Director of Dormitories, Northwestern University

SELECTION OF STUDENT DORMITORY FURNITURE IS A "related" problem—related to many factors in the total housing picture. Since the erection of the first college dormitory, administrators have been struggling to attain the last word in perfection. (Perfection: how to build furniture that students cannot destroy in less than ten years!)

In the early days, as today, cost and usefulness were paramount in the planning. As far back as June 13, 1874, we find the minutes of the board of trustees of Northwestern University mentioning the furnishing of the women's college. Dormitory equipment was purchased for 100 women at a cost of \$6274.15, or roughly \$63 a student. Charges for board, however, were but \$4.50 a week and the students complained about the high cost of living!

It is interesting to learn that when the men's dormitory units were built in 1913, the following statement was incorporated in the minutes: "Each student room is furnished with a single bedstead, a spring, a mattress, a chiffonier, a pillow, a combined study table and bookcase, two chairs, a rug and window shades. The furniture is of fumed oak, attractive in design and constructed to meet the convenience and comfort of the student." (Some of the same study tables and chairs are in use today.)

What, then, are some of these related factors in the housing picture? Size of room, exposure, lighting, occupancy (men, women, single, double or more), cost and type are a few to consider. Size of room often determines the cost and type of units to be furnished. Single *versus* double desk is a problem. Window location in relationship to artificial light must be studied. While great improvements have been made in study room lighting, we have yet to find the ideal arrangement. I. E. S. lamps were much better than the old "gooseneck" lamp. Fluorescent has its drawbacks owing to faulty starters and flickering. Indirect lighting either on the desk or mounted on the wall is superior to the glare produced by a downward ray.

FIXED ARRANGEMENT NOT FAVORED

Again, we must remember that any fixed arrangement is difficult to handle when the furniture is moved around. This brings into the picture the question of built-in furniture, such as desks, chests and bookcases. The recent tendency has been toward the built-in type but we have found that many students do not care for its permanency. They like a change of scenery and delight in moving every piece of furniture in the room to meet their own plans.

As a result, we have adopted the following as standard equipment for a typical double room: two single beds, complete with mattresses, springs and pillows, two desks,

two study chairs, two-four or five drawer chests, two mirrors, one easy chair and a rug.

This furniture is contained in a room approximately 12 by 15 feet, with two built-in closets of about 2 by 4 feet. These are minimum dimensions and equipment for good study habits and general well being of the student group. In most cases today the crowded condition of dormitories does not permit such ideal arrangements but the goal can be achieved in new building and furnishing.

Our students seem to prefer wooden equipment to metal furniture. Well constructed single beds with slat fabric spring and a good commercial grade innerspring mattress are recommended. In one of our newer plans the beds are so located in the room that they become couches during the day for lounging and reading. The casters, so located that the bed does not "wander" when in use as a couch, are set on a 45 degree angle for an easy directional pull at night when the bed is made up.

DESK AND CHAIR FOR STUDY

The study chair receives the most actual abuse and should, therefore, have some special explanation. Well seasoned wood with corner blocks screwed, glued and built with a substantial stretcher is necessary in a student study chair. Students rarely sit up straight in a study chair; usually they sit with one leg over the side or with the chair pushed back on two legs. It is, therefore, desirable to saddle out the seat so it is comfortable when used either in the front position or "side saddle."

Most students prefer a single desk and wherever possible we furnish it. Our new plans call for a desk measuring 3 feet 4 inches by 2 feet 4 inches and 30 inches high. The book shelf is contained in the front of each desk so that when desks are placed side by side each student uses the adjoining book shelf. Thus placed, the students do not sit directly opposite each other and the chance for respiratory infection is lessened. As student health services tend to prefer single rooms, any such staggering of desk space within a double room meets with their approval. A full sized file drawer, as well as the proper height typewriter pull, should be built in the desk for the convenience of students in preparing assignments.

Some care should be given to the finish of wooden furniture as, pound for pound, I believe students are harder on furniture than anyone or anything in the world today! Although pieces are properly constructed, braced and reinforced at every conceivable spot and carefully designed to resist abnormal wear and tear, it is necessary also to seal the wooden frames against moisture or dryness. The darker stains and finishes seem to stand up over a longer period



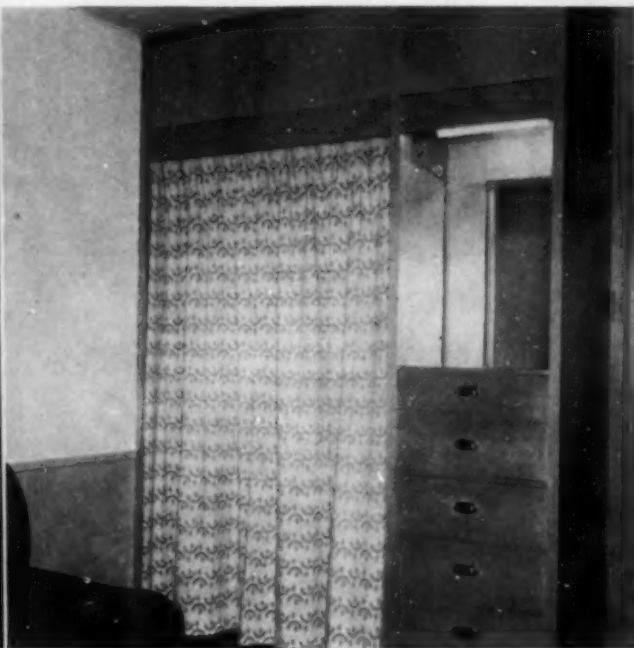
● COUCH for daytime lounging, bed at night.



● TWO DESKS, side by side, provide bookshelf.



● CLOSET is curtained, has storage space above.



● CHEST has five drawers, good mirror lighting.

of time but a constant waxing program should be maintained to preserve the underlying foundation.

It should be remembered, however, that a word of special advice is needed regarding the student room lounge chair. The chair must have comfort built in with a full spring seat and with edges protected against wear by the use of sponge rubber under the upholstery.

The outer cover should not rub against metal at any point. The cover, leather or fabric, should be of as good grade as possible. The arms should be beveled so that a cigaret will not stay placed on the arm. Cigaret burns cause the most damage to student furniture, with articles of wet clothing a close second.

The laundry situation has forced many students to launder more items than ever before. If proper laundry space is not allocated within the house, they will use the lavatories and then hang the garments on the room furniture. The newer electric automatic washing machines are helpful and the advent of dryers will help further in the maintenance of room furniture.

This, then, brings us back to our thesis: In the designing, building or buying of dormitory furniture we should strive for the best obtainable (under the budget) and remember that, almost without exception, students on every campus give furniture and equipment the hardest kind of use and abuse.

THAT PROBLEM OF *Student Accounts*

J. L. BROWNING

Business Manager, Carroll College

MY INSTITUTION IS A SMALL DENOMINATIONAL college of approximately 750 students. During the last eight years we have experienced a cycle in thinking and planning on the best method of handling student accounts that arise from tuition, fees, room and board. Our objective is to make the financial burden of a college education as painless as possible (the majority of our students come from homes in the modest income bracket) and to overcome high credit losses that creep in whenever voluntary or involuntary withdrawals occur within the student body.

At the original stage, back in the depression period, and according to catalog announcement, all college charges were "to be paid at time of registration." But administrative heads permitted partial payments and excessive accounts receivable to appear in the records. It was not unusual, in our case, to carry some \$20,000 in accounts receivable at the year's end.

SOURCE OF LOSS

Needless to state that the summer months involved countless collection letters and correspondence. Inevitable losses resulted from students who did not return to college; from those who transferred to other institutions (prior to a present rule which prevents the issuance of a transcript of credit until the account is fully paid), and from those who were swept into the sea of matrimony.

Regardless of the legal liability attached to the individual case, the college did not resort to legal means of collection primarily because of fear of creating a degree of ill will in certain church communities and the unwillingness of college authorities to have the college name appear in the courts. Our shelves are filled to capacity with dead accounts now written off as uncollectible by our auditors.

A second stage in the cycle appeared when the college substituted the interest bearing note receivable for the open account. To add additional weight, the signature of the parent or guardian was included.

Although some reduction in credit losses was experienced, the problem still remained. Several factors contributed to this: the college was reluctant to discount the notes at a bank or other financial institution on the ground that "parents and students prefer to deal directly with the college and are likely to take offense when they discover they are now in contact with a bank." A second contributing factor was note extension.

A third stage in our own little cycle was unveiled some four years ago in the form of a Tuition Plan Contract. This was a common law contract drawn up to cover whatever period of time the student might be in college. It called for one third of the total charges to be paid at time of registration, the balance to be paid in three equal installments falling due on certain specified dates each semester. It was signed by both student and parent. No interest charges were included but a delinquent payment fee of \$2.50 was added in the event of delay in payments.

This contract had both its advantages and disadvantages. Some opposition was met in the fact that the student who paid cash in full paid the same amount as the student who elected the deferred payment plan. The plan did, however, receive a more cordial reception than any previous method. The clerical work in the office jumped 100 per cent overnight but credit losses dropped to the lowest levels ever experienced by the college. This was due for the most part to our ability to catch a delinquent case quickly before it reached a large sum and also to better cooperation between the deans' offices and the business office. It was discovered that there is a remarkable correlation between low grades and delinquent accounts.

With student enrollment bursting at the seams in 1946-47 and with a G.I. population representing nearly half our entire student body, the fourth

stage came upon us suddenly and, starting with the second semester in February, we have swung the pendulum back to a cash and cash only basis. The inroads into working capital funds caused by the deferred and delayed policy of the Veterans Administration in payment of tuition and supplies are primarily responsible for the change. G.I.'s who are "on their own" are reluctant to tie in their parents' signatures on contracts; their own plans for a four year college program are, in many cases, uncertain, and the \$65 allowance doesn't stretch far when a new overcoat or "date" money is needed. Too frequently the college finds itself providing for dates and overcoats.

SOURCE OF CREDIT

To carry student accounts in the form of notes or common law contracts not only freezes immediate cash funds and adds greatly to the clerical costs involved but also places the college in the banking business, a business it logically should keep away from. This last stage seeks to impersonalize the problem of college finances, however painful the process.

It is expected that students and parents will arrange for credit, if credit is needed, at local banks in their own home community. It is here that the credit position of a student can best be ascertained, not within the ivy walls.

A college education today means an investment of \$4000 and up. It is only reasonable that such an outlay be financed in much the same manner as in the purchase of a home or automobile or other capital asset. Such a program also contributes to the financial education of a student and places him in direct contact with financial agencies that he will meet in life.

We are back again to the cash basis for just reason, let the chips fall where they may. In the long run we are confident that the chips will turn to blossoms in the form of additional grants-in-aid and scholarships.

IS YOUR CAMPUS "COVERED"?

Read this lively article, check your insurance policies, then answer the question. Incidentally, you may wish to add a few considerations

T. E. BLACKWELL

Treasurer and Secretary of the Board
Washington University

ONE OF THE MAJOR RESPONSIBILITIES of the college business administrator is to make certain that his institution is adequately protected by a sound program of insurance. In the last analysis, this is the responsibility of the board of control of the institution but the business officer of the institution is much closer to the problem and must, therefore, bear the responsibility for the administration of the program.

Unfortunately, the purchase of insurance is too frequently on the basis of friendship and, once purchased, the policy is filed and forgotten until expiration. In these days of rapidly changing values, nothing could be more hazardous. Insurance should be purchased with care, periodically reviewed and adjusted to meet new conditions.

ANALYSIS OF THE HAZARDS

The first step in planning a program of adequate insurance is an analysis of the hazards. No institution or individual can afford to carry insurance against all possible risk of loss. The risks must be measured, analyzed and classified. In this article, the problems of the endowed college and university will be given primary consideration since publicly supported institutions may not be under obligation to replace buildings and equipment from their own funds. Moreover, the state, in its sovereign capacity, is immune from suit by individuals for the negligence of its employees, although legislation in some states permits the filing of claims under certain circumstances.

Because of space limitations, this discussion will omit also consideration of all employee welfare coverage, including group insurance, health and hospital plans and retirement annuities as well.

Insurance contracts may be written to cover the following hazards: fire, smoke, windstorm, hail, earthquake, explosion, riot, civil commotion,

sprinkler leakage and other water damage, negligence of officers and employees, workmen's compensation, burglary, theft, larceny, robbery, forgery, fraud and a host of other risks.

It is obvious that the average insurance committee should have the benefit of expert counsel in the analysis of the hazards to be covered and the types of insurance contracts to be purchased. The educational training of the college business officer should, if possible, include courses of study in insurance in all its details. In addition, he should obtain competent and unbiased advice where this is available.

It is not easy to select competent and unbiased insurance counselors. Men in the insurance business are usually competent in their own field but it is almost impossible for them to give entirely unbiased advice, even with respect to the insurance needs of their own college. There is a growing profession of the independent insurance analyst, paid by the insured rather than the insurance company, and thus presumably in a position to give unbiased advice to his clients. Until the profession attains the status similar to that of the certified public accountant, it will be difficult for the layman to judge his competency.

Purchase of insurance through a broker rather than an insurance agent is another method used by some colleges. Presumably, the broker represents the purchaser rather than the seller of insurance and is thus able to study the offerings of a number of competing companies. In the long run, however, much depends upon the competency and integrity of the individual rather than upon the form or method of the transaction.

PROPERTY INSURANCE

The usual hazards covered by this type of insurance are fire and windstorm. There is a growing tendency

for these two risks, plus what is known as "extended coverage," to be included in one contract. This has the advantage of bridging any possible gaps in the coverage afforded by separate policies. "Extended coverage" may include, in addition to fire, insurance against the following hazards: windstorm, lightning, hail, explosion, riot, riot attending a strike, civil commotion, aircraft, vehicles and smoke.

AMOUNT OF COVERAGE

After a careful study of the types of coverage to be included in the program of insurance, the next step is the determination of the amount of coverage. In the case of property insurance, this necessitates the determination of what is frequently termed "sound insurable value" or actual cash value of the property to be insured.

The courts of this country have generally held it contrary to public policy to permit the insured to recover more than the "actual cash value" of the property at the time of the loss, even though the policy may be for a larger amount. This is usually measured by the cost of replacement, less the amount of accrued depreciation. Original cost or book values have little bearing on the problem. In these days of creeping inflation, with costs of construction advancing day by day, the alert college business administrator will give careful consideration to increasing the amount of all property insurance.

Adequate coverage is especially important if the insurance contract contains a "co-insurance" clause. This provision of the contract is in the form of a covenant, wherein the insured agrees to carry insurance equal to a stipulated percentage (80 to 90 per cent) of the sound insurable value of the property. If, at the time of a loss, an appraisal should indicate underinsurance, the insurance company need not pay the full amount of the loss, even though it is less than the amount

of the policy. The insured has become a co-insurer, measured by the amount of under-insurance.

For example, assume that the policy contains an 80 per cent co-insurance clause and that, at the time the policy is written, the actual cash value of the property, less allowable exclusions, *i.e.* foundations, footings and similar construction factors, is \$100,000. The amount of the insurance should, therefore, be \$80,000 or more. Now assume that, owing to increased costs of construction, the actual cash value of the property, less exclusions, has increased to \$200,000. A fire occurs and the insured files a claim for \$80,000. Unless the insured has, in the interval, increased his insurance to \$160,000, 80 per cent of the new value, the company is not obligated to pay the full amount of the claim. Since the amount of the insurance in force is only 50 per cent of the amount required under the covenant in the policy, the insured has become a co-insurer to this extent and can, therefore, collect only \$40,000 on his claim of \$80,000. This makes accurate appraisal of current

property values of great importance.

The best assurance of a competent appraisal of property values under present unsettled conditions is the employment of an expert in this field. The profession of valuation engineer is well established and it is important to select the firm with considerable care. Your local trust company can often give good advice in this matter. If a detailed valuation report on the properties is available, it is possible to adjust the values therein to reflect current costs of construction through the use of a price index, based upon building labor and material costs.

CASUALTY INSURANCE

The courts of a few states have held that educational and other charitable institutions are not liable for the negligent acts of their officers and employees. Consequently, these decisions should be studied in order to ascertain the extent of the hazards to be covered by casualty insurance. If your institution is incorporated in Illinois, Kentucky, Maine, Maryland, Michigan or Missouri, your attorney may advise

you that casualty and workmen's compensation insurance are not needed.

On the other hand, the courts of Minnesota and New Hampshire have decided that educational and charitable institutions are to be held to the same degree of liability for negligence as that demanded of individuals and business corporations.

If the college is not liable for negligence, the insurance company can take advantage of this legal immunity unless restrained by the terms of the contract. If there is any doubt on this point, the National Underwriter Service suggests this policy endorsement:

"It is a condition of this contract that the company will not avail itself of the defense that the insured is a religious, educational or charitable institution . . . without the written consent of the insured."

Thus, even though there may be only a moral obligation on the part of the institution to take care of persons injured through the negligence of employees, prompt payment to those injured may prove valuable in terms of good will and public relations.

RETIREMENT BENEFITS ON THE INCREASE

GROWING NUMBERS OF AMERICAN colleges and universities are recognizing the need to increase retirement benefits for their teachers and other personnel, according to results of recent research announced by the Teachers Insurance and Annuity Association of America. A nonprofit corporation organized in 1918 jointly by the Carnegie Foundation for the Advancement of Teaching and Carnegie Corporation of New York to provide more economic security for the college world, T.I.A.A. has pioneered in helping educational institutions set up sound retirement plans.

Twenty-three colleges and universities with long established retirement programs have made their old age benefits more generous during the last year by enlarging the premiums and increasing their own contributions. The revised plans are generally based on premium payments amounting to 15 per cent of salary, with the college and the staff member each contributing half or with the college giving 10 per cent and participants paying 5 per cent. In the past, most plans were

based on 10 per cent of salary, with matching contributions of 5 per cent.

Although most of the new plans are of the traditional "10 per cent of salary" type, many colleges are convinced that "this contribution level established during the 1920's . . . is no longer adequate." Warning against procrastination, the T.I.A.A. says, "Years turn into decades, leaving many retirement plans unchanged, and as a result large groups of college staff members may find themselves with inadequate retirement benefits."

Failure to provide retirement coverage for nonacademic employees is still a major weakness of many college retirement plans. These employees, like all college personnel, are excluded from Federal Social Security. Although the trend is toward inclusion of non-academic employees in college retirement plans, "only one out of every five of the plans started in 1946 did provide for members of this class."

Among colleges and universities reporting more liberal benefits are:

New York State: Teachers College of Columbia University and Union

Theological Seminary, New York City; Syracuse University, Syracuse; Colgate University, Hamilton; Elmira College, Elmira; Rochester Institute of Technology, Rochester.

New England: Mount Holyoke, South Hadley, Mass.; Bradford Junior College, Bradford, Mass.; Wesleyan University, Middletown, Conn.

Mid-Atlantic: Princeton University, Princeton, N. J.; Ellis College, Philadelphia.

Southern: University of Chattanooga, Chattanooga, Tenn.; Washington and Lee University, Lexington, Va.; Furman University, Greenville, S. C.

Midwest: DePauw University, Greencastle, Ind.; Cornell College, Mount Vernon, Iowa; Beloit College, Beloit, Wis.; George Williams College, Chicago.

Far West: Occidental College, Los Angeles; Colorado College, Colorado Springs, Colo.

Canada: Victoria University, Toronto, Ont.; Queen's University, Kingston, Ont.; Trinity College, Toronto, Ont.



LOST: THE ART OF FOOD BUYING ?

ANDREW VITALI

Steward, Mount Holyoke College

HAS THE ART OF FOOD PURCHASING been lost? To be sure, for the last four years food buying has at least been a forgotten art. I don't mean to imply that there has been no purchasing done. To the contrary, a great deal has been bought and sold and large sums of money have been spent but, actually, the purchasing agent had little to do other than place the order and hope for delivery.

Gone was the quality and price comparison. The word "ceiling" was the magic word—and well chosen for it sheltered everything. How some ceilings were established no one now will ever know but, during the war, every jobber or purveyor had to have his own ceiling. From the consumers' point of view, these were not entirely favorable. For example, the items that, prior to price control, carried differentials in price because of quality were all placed in one category with the ceiling fixed at the highest price at which the item was being sold by any jobber within the area.

Bills for merchandise ordered and received which, in many instances, ran into several hundreds of dollars had to be paid but, actually, the buyer had no voice in the setting of the price. In fact, there was no way of knowing how much the actual cost was until the invoice was received. There were so

many extra charges tagged on, such as crating, handling and trucking, that on a small purchase the extra charges sometimes amounted to more than the cost of the item itself.

In the food industry, particularly in regard to meat, the restrictions and regulations were the most complicated and, for the consumer, the most burdensome, the costliest and the most inconvenient.

Even the least informed came to learn of primary cuts, fabricated cuts (mutilated should have been the word), oven prepared cuts and other specials. Naturally, all had different ceilings. Every time the meat cutter used a different knife a new ceiling appeared. One consequent wartime evil was that hotels, restaurants, schools and institutions had to accept and pay for cuts of meats that had been ruined by unskilled meat cutters when their own staffs could have done the job much better and less wastefully.

In retrospect, our wartime experience in food buying was a trying one. An expensive headache, it was also educational.

Now we say we are returning to normal. That may be so, in a certain sense, yet we may also be entering into a new era. Even in such an ancient industry as food, certain progress has been made and will continue

to be made in processing, packaging, freezing and dehydrating. These new developments will affect the food purchasing of the future.

We are happy to welcome back competitive business. Daily market quotations begin to mean something again. Prices and quality can be questioned with impunity. Salesmen whose arrogance we once put up with are now returning with their stale cigars and jokes to match. Strangely enough many items, heretofore considered in short supply with no relief in prospect, have inexplicably reappeared in the market. The prices, to be sure, are prohibitive but at least the merchandise is available.

Now, since our economy has produced, in my opinion, a price level that is temporarily high, how can institutional food buyers control their costs to the best advantage? Here are a few observations.

High prices, to a certain extent, can be controlled by the consumer. Many of us had to operate during the war era with a great number of short items and to resort to the use of substitutes in order to maintain some sort of food standard. Moreover, we are now prone to rush big orders for these so-called scarce items, regardless of the prices, because we have not had them for a long time and want to put them on

our menus. At this point we are making our great mistake, for we purchase items priced anywhere from 200 to 300 per cent higher than they were prior to the war. A certain increase over prewar prices is understandable, say, for example, a 50 as over a 100 per cent increase, but not the 200 to 300 per cent that is reflected in the prices of many items.

As a firm believer in the old economic law of supply and demand, I am convinced that if we, the institutional buyers, are willing to carry on as we have during the last five years, that is, by continuing to use substitutes and doing without these highest priced items for a period of a few more months while the supply continues to increase, the prices will come down to meet the demand.

Certainly we can all help to bring down the price of food in general by using up our inventories entirely before re-ordering and further by making our purchases in smaller quantities. We should make them oftener, if necessary, but keep them small.

Fresh meats, fruits and vegetables should be ordered on a basis of daily requirements. Staple items should be ordered in such quantity as will provide for two to three weeks at the most. This method of operation will affect the market and have a tendency to bring prices down.

It is significant that numerous items have already started a downward price trend because they were not moving fast enough at the past ceiling prices. Food prices, in my opinion, have reached the peak and are moving in a gradual downward trend; therefore, a buyer who is in a position to do daily marketing can take advantage of whatever market drop takes place from day to day or from week to week. The period of shortages is over and there is no need of buying six months' to a year's supply of canned goods until prices reach a level where educational institutions can afford to pay what is asked and still keep within their budgets.

We cannot compete with high class hotels, restaurants or clubs when it comes to the purchase of luxury foods because their added cost is passed on to the customer whereas ours is added to the cost of education and, in most instances, cannot be passed on immediately to our consumers.

The fertile soil of this country can produce a great deal more than we can consume as has been demonstrated

USING up inventories entirely, making purchases in smaller quantities—and oftener, if necessary—but buying the best quality available are the author's recommendations for bringing prices of food products down.



during the last five years. During that period we fed not only ourselves and our armed forces but also a large part of the rest of the world. Some of the countries we had to feed are gradually becoming self sufficient and thus the demand for our food and food products for export purposes will progressively decrease. The results will be (1) a greater supply for our home consumption and (2) lower costs.

BUYER-SELLER RELATIONSHIP

A word or two on the buyer-seller relationship is appropriate at this point. Regardless of how efficient and skillful a buyer may be, he will still have to rely to a large extent on his broker or purveyor. A good relationship between buyer and purveyor is essential to both parties. Mutual confidence and respect should exist between two people transacting business. If the purveyor gives quality, value and services for the money invested, he is entitled to a reasonable margin of profit. Otherwise he cannot stay

in business. Once a satisfactory relationship has been established, staying with the same supplier should be carefully considered.

On the other hand, if the supplier is not satisfied with a fair profit and attempts to take advantage, it would be better to drop him immediately; nothing is to be gained by bargaining under those conditions. A transaction that favors either party exclusively is never a satisfactory transaction. If the purchasing agent knows the merchandise and the right market price, that is the price he should pay.

It has always been my policy to buy nothing but the best available quality of food products whether it be meat, fish, fruit, vegetables, dairy products or canned goods. This practice may mean higher initial expenditures but it will prove less costly in the end. By providing the best to work with, there are less shrinkage and less preparation waste. The consumer then eats with relish. Is not this objective, after all, the one that we are constantly striving to fulfill?

HOW TO TAKE CARE OF ROLLING STOCK

JAMIE R. ANTHONY

Purchasing Agent
Georgia School of Technology

THIS ARTICLE IS NOT INTENDED AS a cure for everybody's troubles in operating a fleet of trucks for an institution. It is intended merely to tell some of the experiences and conclusions we have reached from actual experience over a long period of years. When applied to operations larger or smaller than those described here, the situations discussed will, perhaps, provide some helpful suggestions.

Inspections. Periodic inspections of all rolling stock should be made to determine whether or not proper maintenance is being made, also if careful handling of equipment is being observed by the drivers and by other persons responsible.

Proper Maintenance and Supervision. The care and welfare of the rolling stock should be placed with one individual, preferably the superintendent of general plant operations or a man of similar rank. The operator of the vehicle should be next in line for proper servicing and maintenance of the vehicle. He should check the following daily: fuel supply, crankcase oil level, lubrication date, water, air, battery and other items, such as general appearance of the truck (washing and polishing of body). There should be a regular inspection date for other items, such as axle housing, transmissions and body tightening.

Normally, daily inspection should be the first task scheduled for the day. Any part that might seem not to be functioning properly should be called to the attention of the superintendent.

Driver Reports. If the institution is operating a fleet of 12 trucks or more, a daily trip report and a maintenance report should be filed. These reports could be on the same sheet and the detail worked out to suit the needs of each situation. As a suggestion, it could show: driver's name, immediate supervisor, department assigned to, date, time in and out and speedometer readings before and after each trip is made.

On the reverse side a check list for maintenance, with a line for remarks after each check item, would suffice. Institutions operating smaller fleets would profit from a trip and service record that could be made in less detail. It would be interesting, for example, for the smaller fleets to realize their gas mileage and tire mileage.

Driving Permits. Careful inspection should be made of all new operators' driving permits to ascertain whether or not the operators are licensed and have up-to-date permits in those states in which permits are required. It should be the responsibility of the superintendent to make sure that all operators' permits are in order.

The operator of the vehicle should be chosen with care as he is in charge of a valuable piece of equipment—and an expensive one to operate when not handled properly. The driver can be of the greatest aid in preventing expensive repairs by reporting and observing early symptoms of serious trouble as well as seeing that greasing is done regularly. The faithful performance of the operator in making his daily inspections and reports can well save the institution the cost of his wages by eliminating expensive repairs and prolonging service life.

One important routine should be followed at all times except in case of extreme emergency. All requests for the use of a vehicle or for one to be assigned to a certain department should go directly to the superintendent who will have a better opportunity to route the vehicles properly and to take care of the institution's property.

Operation. The engineering of today's vehicles makes them extremely accurate and efficient when properly maintained. If at all possible, a regular operator should be assigned to each vehicle as he will have a tendency to feel that the vehicle is his property and thus take more pride in caring for it and in preventing other persons from abusing it. Also if there are

several operators of the same vehicle and it turns up at the daily inspection with a crushed fender, broken glass, gears stripped or other damages, there is no way of placing this blame or even of finding out how or why the damage occurred.

If the institution will take the necessary steps to see that all vehicles are kept clean and in good repair, it will go a long way toward inspiring operators to take good care of the vehicles and to report any trouble promptly, for no one is going to worry over a truck that looks dirty and worn out. All vehicles should be housed in the same garage to facilitate inspection, check ins and check outs.

In our experience it is more satisfactory to send vehicles to commercial garages for major repairs than to attempt the work ourselves.

Sending the truck to the dealer who sells the vehicle in need of repair is even better, provided he maintains a repair department. Realizing the time will come for the purchase of another vehicle, he will be interested, we believe, in seeing that we receive good operating service. A competitor may have the tendency to make just the amount of repairs necessary to collect the bill, with the recommendation that we purchase from him next time since we are receiving such poor service from the present dealer. We make small repairs, such as tightening brakes, replacing lights and batteries.

If the institution has a mechanical engineering course which includes automotive engineering either in regular day courses or in evening trade courses, there is a wonderful opportunity for the school, from a financial standpoint, and for the student, for practical reasons, to make tests on the vehicles before the repairs are made and to perform follow-up tests afterwards. Moreover, there is no reason why the students should not make minor repairs, such as motor tuning, brake adjustments and similar servicing, for the practical knowledge and experience they would gain.

TREES NEED INTELLIGENT CARE

HOMER B. MacNAMEE

Superintendent of Grounds
Cornell University

DURING THIRTY YEARS OF UNIVERSITY service, in which a large proportion of my time has been devoted to the planting and maintenance of trees, I have become convinced that "You've gotta love 'em."

I shall always remember my feeling of reverence and awe when I discovered that on the campus of the University of Michigan the many fine old oaks, elms and maples would be my "babies." I soon discovered that they responded to good treatment just as people do. In their formative stage when they begin to grow in an ungainly manner, even as children do, judicious pruning will correct the fault and start them off properly.

THEY MUST BE FED

Again just like people, trees must be fed, but not too much. Let them ask for it! As they extend their roots in quest for nourishment the root capacity increases, rendering them able to supply themselves with food and moisture when these items are not plentiful.

Trees in their native forest are largely sustained by the annual shedding and deterioration of their leaves and twigs; these form a mold rich in organic matter, or humus, which contains most elements required to promote healthful growth. On the campus or home lawn we are prone to remove these leaves as they fall, in order to promote cleanliness and beauty of lawn areas.

If these leaves could be returned each year in the form of fine humus, the trees would need no substitute food; when this is impractical, suitable rations of nitrate, phosphorus and potassium should be provided, used always in amounts directly proportionate to the size of the tree or its apparent need.

The great handicap of the campus tree is environment. The modern college or university is constantly changing; improvements are in the making and too often little regard is paid to the trees that have done so much to

enhance the reputation of the grounds. Rows of stately and graceful elms, lovingly planted by our predecessors on either side of a narrow dirt or gravel drive, may later be irreparably damaged when the drive is broadened and made impervious; all of this to accommodate the student who, instead of walking to his classroom, must needs ride in an automobile.

The tree planted to accentuate a graceful curve in the drive, suitable for a former president's horse and buggy, may have been sacrificed to the much broader turn required by the speed of the wreck of a car driven by Joe College. When Joe arrives at his classroom door with one minute to spare before answering roll call, he must have a suitable parking area just outside.

All the concrete or asphalt laid to accommodate modern traffic spells slow but sure death to many lovely trees. Water and food cannot penetrate to the roots, and lingering death begins. Starved branches die back from the tips, larger branches lose their vigor, defoliation follows, and with it is lost the ability of the tree to gather and manufacture necessary elements from the air. At this point amputation or surgery begins.

The art of tree surgery, if skillfully and sympathetically performed, fulfills a real need in successfully extending the useful life and beauty of many fine tree specimens. A sturdy oak, shapely and beautiful, strategically placed in reference to a fine residence may have, over several generations, attained a sentimental value and even an intrinsic value to the property that is incalculable. But let the surgeon beware, for, if his background of knowledge and experience does not measure up to the task at hand, he may ruin the specimen beyond repair.

An act of God in the form of a severe wind storm or, more particularly, an ice storm may create more havoc than can be repaired in many months. Such a plague as the so-called Dutch elm disease may destroy or

cause to be destroyed thousands of mature trees, denuding the landscape for hundreds of square miles and apparently selecting as its victims only the finest and most cherished specimens in the area.

We wonder why tragedies such as this should be. A close study of the question leads to the conviction that we have left too much to fortune. We have reasoned that God made the trees and will take care of them. I have no quarrel with this premise, except that it is incomplete, for Genesis informs us that the same God created man and gave him dominion over the earth including the trees. This entails a responsibility to provide such care for them as our highest intelligence dictates.

THEY MAY NEED FIRST AID

To this end, we must frequently inspect trees, carefully noting imperfections to be remedied. There may be a dead branch to be removed; let's be sure this is done promptly and without injury to healthy parts of the tree. This will prevent a home-seeking parasite from establishing a breeding place for next season.

It may be that, through the years, the tree has become top-heavy and requires bracing to prevent top damage during periods of storm. If damage has already occurred and the crotch has split, we can climb well into the tree, select opposing branches, drill through them and insert eyebolts secured on opposite ends with washers and nuts. We then place tackle between the two branches and, by use of motive power, draw the two damaged portions together tightly. At the point of breakage one or more bolts, or threaded rods, may be inserted.

If the job is properly done, natural healing methods will cause the wound to heal in a few growing seasons. Meanwhile, the wound is carefully trimmed and filled with a plastic material, preferably one with an asphalt content, to exclude moisture and wind borne organisms.

Inspection may reveal structural weakness resulting from interior decay. This condition may have originated years earlier and the immediate cause is probably mechanical. A lawn mower carelessly handled, a sickle in the hands of an immature person or even a grass fire may have so injured the protective bark that infection may enter. At this point, ants and a myriad of other creatures enter and burrow into the decayed wood. Wherever they travel, infection is carried, until decay may have progressed throughout the trunk structure and into the primary branches.

If a tree, having reached the condition described, is of sufficient importance to the campus to warrant the expense, the superintendent of grounds may employ a competent tree surgeon to enter the tree through apertures

cut into the infected trunk and, with tools and equipment, chip out and remove all decayed and infected wood, replacing it with concrete, wood filler or other approved substance. Before the filling is begun, a good disinfectant is applied to all exposed surfaces, thus ensuring that decay will not be resumed in the future.

I have performed or supervised several such operations in which 8 or 10 cubic yards of filler has been employed. These several operations over a period of twenty-five years have proved highly successful; the tree specimens show every evidence of many years of continued useful and vigorous life. It must be remembered that all the wood removed during such an operation is inert and lifeless and has no relation to the food lines of the tree, all of which are contained

in the cambium layer under the bark.

If the tree in its relation to the property on which it grows does not warrant the expense incurred in such an operation, the superintendent would do well to have it removed before it assumes the appearance of an animated cadaver. It can be replaced with a perfect specimen. Modern equipment and experience enable us to move and replant a well grown tree; the cost of a healthy oak, elm or maple with a caliper of from 6 to 15 inches, well moved and planted, should be less than that of a major cavity filling operation.

Joyce Kilmer's familiar poem asserts that "Only God can make a tree." That is correct but we can do much to promote the general plan by loving trees and by expressing that love through intelligent care.

College AND UNIVERSITY Business

CONTINUING STUDY OF OPERATING PRACTICE

Periodically, *College and University Business* asks a selected group of readers about a specific operating technic or method and publishes the findings for the guidance of readers in measuring their own methods.

WHAT ABOUT NONACADEMIC PERSONNEL?

Interpreted by

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Director of Nonacademic Personnel, University of Illinois

FOR THE WORKING SCHEDULES OF nonacademic employes, American colleges and universities prefer a 5½ day week for all groups except nursing and agriculture; there a 6 day week still predominates. About 20 per cent of these institutions provide premium pay for overtime work, usually at time and a half.

Practically all give annual vacations with pay, two weeks being the general allowance. Six holidays with pay are allowed in more institutions than provide any other single number, although total allowances vary all the way from none at all to 10 or more. Almost as many provide some sort of

disability with pay, but in widely differing amounts and under a variety of conditions.

About one third of the colleges and universities recognize a minimum percentage differential for computing the rate of foremen as compared with that of those whose work they direct. No institution has all of its nonacademic employes under labor union organization, but about 10 per cent have some campus unions, mostly in the building trades and building service groups. Few report recent union organization or current negotiations for recognition. About one third have some type of established grievance

procedure for handling employe problems and complaints.

Not quite half of the colleges provide any sort of retirement plan for nonacademic employes, but enough are planning new systems to bring the average up to about the 50 per cent line. Most of those that now have a plan match equally employe contributions, though a few pay all the costs and fewer collect from the employe only. A large majority make some kind of a group hospitalization insurance plan available to these employes, but hardly any provide opportunity for insurance for other medical expenses. About 20 per cent offer

TABLE 1 — LIBERALITY IN PERSONNEL RELATIONS BY REGIONS

Region	Death Benefits	Retirement Plans	Grievance Procedure	Foremen Differential	Premium Pay for Overtime	Total Position Points	Rank	Intensity of Union Organization
New England.....	7	6	5	4	7	29	6	
Southeast.....	6	8	6	8	2	30	7	
Middle Atlantic.....	1	4	2	3	4	14	2	4
South Central.....	4	8	3	6	8	29	6	3
Middle West.....	2	3	4	5	6	20	4	2
Rocky Mountain.....	4	1	1	2	1	9	1	1
Southwest.....	8	7	4	7	5	31	8	
Northwest.....	3	2	2	9	8	24	5	
Pacific Coast.....	5	5	3	1	3	17	3	

Numbers indicate relative rank based on the percentage of "Yes" answers from the area. Low number in the total column indicates top rank.

death benefits for the family of a deceased employee.

These statements are true of higher education in general if the 273 questionnaires on the status of nonacademic employees returned by the time this issue went to press may be taken as typical. Inasmuch as the questionnaires returned were from all parts of the country, since they provide information from a cross section of institutions in small, middle sized and large communities and since the institutions represented range in size from a few hundred students to many thousands, the results should be typical if not absolutely accurate.

Answers to the questions dealing with overtime, foremen differential, grievance procedure, retirement plans and death benefits indicate that the Rocky Mountain States are most progressive in these matters of personnel practice. By counting the number of "Yes" answers to these questions and computing their percentage relationship to the total number reporting from each area, we arrive at the rankings in order of liberality shown in table 1.

One might expect to find a close correlation between liberal employee relations policies and freedom from union organization. Strangely enough, this does not work out, for the Rocky Mountain States rank first in intensity of union organization as well as in progressive personnel practices. The Midwestern States are second in intensity of union organization as compared to fourth place in the progressive practices; the South Central States are third and Middle Atlantic, fourth in intensity of union organization. Thus three of the four regions showing union activity are in the upper half so far as liberal policies are con-

cerned. There is, of course, another possible answer: that the actual presence or the threat implied in union activity in the area in general may have had something to do with the granting of these benefits.

Let us look, however, at other details brought out by the survey and summarize briefly the facts concerning each subject covered.

1. How many hours per week and days per week do the following non-academic employees work?

Table 2 indicates the number of work days per week for the various groups by number of institutions reporting.

Developing trends in favor of the 5 day office week appear to be well scattered over the entire country except in the southern area, but with most of the larger population centers naturally showing influence of urban schedules. The small number of institutions scheduling maintenance employees for the 5 day week is, on the other hand, surprising, in consideration of the general use of the 5 day week in these trades.

The number of 5 day nursing schedules should, however, cheer those who are advocating, against considerable opposition, the shortening of the nurses' week. And the number of 5

and 5½ day farm labor schedules provides somewhat unexpected evidence that this traditional sunrise-to-sunset group is attaining standards comparable to those for other workers.

As to hours in the work day, the 8 hour schedule is almost uniformly used in laboratories and stores and in maintenance groups, but with a scattering of 9 hour days for custodial workers. A few remnants of the old 12 hour nursing schedules appear also. On the farm, the weight is surprisingly on the 8 hour day, but there are a number who require 9, and almost as many, 10 hours, with one institution reporting 12 hours and one college 14 hours! In offices, the 8 hour day is in the majority, but there are quite a number of schedules calling for shorter office days of 7½, 7 or even as low as 6 hours.

2. Do you pay a premium rate for overtime work?

The tabulation already noted indicates relative regional trends. The total report shows that only 15 per cent of all institutions recognize any obligation to pay this premium rate for overtime, a practice that has come to be part of the general wage pattern of business and industry in this country. We can reasonably expect some pressures to get in line.

TABLE 2 — LENGTH OF WORK WEEK FOR VARIOUS EMPLOYEES

	5 days	5½ days	6 days	7 days
Office and Clerical.....	52	190	15	
Laboratory and Stores.....	38	93	17	
Custodial.....	18	109	57	9
Maintenance.....	26	107	50	1
Nursing.....	21	30	42	12
Farm.....	21	30	42	12

3. How many days of vacation with pay?

Approximately 78 per cent provide two weeks' vacation; 7 per cent give one week; 8 per cent, three weeks; 5 per cent, one month; 2 per cent, none at all! Some show longer schedules for office workers than for maintenance and custodial employees; few, if any, of the latter group are in the number receiving more than two weeks per year.

4. How many days of sick leave with pay?

This question brought out a greater variety of practices than did any other. On an annual basis, 12 reported no allowance at all; 25 gave less than five days a year; 28, approximately one week; 78, two weeks; 23, three weeks; 14, one month; 2, two months; 5, three months; 63, no limit. Little difference in regional practice appears.

The number of "no limit" policies is impressive, though it would be interesting to know just how, if at all, such leaves are controlled, and especially whether each case is considered individually and decided in accordance with the known facts. One reply did say "do not favor definite sick leave as it encourages malingering (especially female employees)"!

5. Holidays.

The practice varies widely as is shown below.

Holidays With Pay	Colleges Reporting
0	11
2	7
3	16
4	28
5	37
6	85
7	19
8	8
10	10
Over 10	19
No set number	6

6. In regard to foremen, do you recognize a minimum percentage dif-

ferential over journeymen in establishing their rate?

This question might have been better phrased to provide an answer to the fundamental question of whether or not the principle is recognized of always paying supervisors at higher rates than are paid those supervised. We may assume that more institutions recognize this principle of a differential than may have established a firm minimum. Of those answering, 100 reported no such differential, as compared to 92 who did recognize it. Replies indicated a slightly greater tendency to recognize this practice in the larger cities.

7, 8, 9, 10. Questions pertaining to union membership.

No institutions reported completely unionized nonacademic staffs. Maintenance, service, custodial, power house fire and engineering, food service and farm workers were mentioned in the frequency named, as the organized groups noted on about 10 per cent of the campuses reported.

It is evident that unionization on the campus is still not widespread and that it is generally limited to the groups mentioned (though there are known to be in at least a few institutions union organizations covering laboratory, office and nursing groups). There is no evidence from the survey as to the effect of town size on unionization since the reported union organizations occur in communities of all population ranges. Most unions listed have been recognized for a number of years and no institution reported active negotiations for new recognition. Needless to say, then, the A.F. of L. is predominant, with only a small scattering of C.I.O. or other unions represented.

11. Do you have an established grievance procedure for the proper handling of complaints?

Eighty-six institutions reported an established procedure; 155 had none;

one report said simply, "See the President." Considering the number of smaller employe groups represented, the number reporting affirmatively may be considered high and speaks well for the realistic handling of this problem on the campus.

12, 13, 14, 15. Retirement plans and other benefits.

One hundred thirty-three institutions report no retirement plan whatsoever for nonacademic employes, as compared with 128 that have a plan. Several colleges indicated that plans are under study or in progress, but there surely remains much to be done on what should be considered an absolutely mandatory protection for our employes. Most of those reporting plans used the type under which employer and employe share equally in the cost.

The great majority have some sort of hospitalization insurance plan available to the employe at the employe's expense, but few provide similar opportunities for group insurance for medical and surgical expenses. Fifty institutions provide a death benefit payment to dependents.

The results of this survey provide the campus personnel officer with several definite indications as to problems with which he may be faced:

1. The trend in business and industry toward the standard five day week will bring increasing pressure on the college and university to arrange similar schedules.

2. The general acceptance of the principle of premium pay for overtime work must inevitably be reflected by demands for similar consideration for our employes.

3. An honest soul-searching should be done on the question as to how we can justify the complete omission of the nonacademic employe from adequate provision from old age security.

4. There is need to learn for the first time how to get along with a labor union.

Salary Survey

The salaries paid college office, clerical, laboratory and stores workers, custodians, maintenance tradesmen, nurses and farm employes as of February 1947 will be published next month. Robert F. Moore, director of personnel at Columbia University, will interpret the returns on the College and University Business salary questionnaire.

DAMAGE SUITS AGAINST UNIVERSITIES

In the aftermath of Purdue's tragic bleachers collapse, the rulings cited here are timely



M. M. CHAMBERS

American Council on Education

THE LAW TOUCHING THE LIABILITY of educational institutions for damages in tort is in a yeasty condition. Among nine recent cases reaching the higher courts of the states, there were five in which the judgments of lower tribunals were reversed. Out of five states where privately controlled universities or corporations for related educational purposes were defendants, in only two was the hoary doctrine of immunity for charitable institutions successfully invoked and then in a somewhat restricted guise.

PRIVATE INSTITUTIONS

Southern Methodist University was sued for injuries sustained by a woman patron at a football game where temporary bleachers collapsed. On her behalf it was alleged that the bleachers were crowded beyond their capacity and that they were faultily constructed of materials which had been allowed to become old, weakened and defective. A further allegation that the university employe who managed the bleachers was incompetent was at first a part of the pleadings but was withdrawn early in the proceedings. The trial court directed a verdict for the university and entered judgment accordingly, holding (1) that negligence had not been proved and (2) that the university was immune as a charitable corporation.

The court of civil appeals reversed and remanded the decision, directing that the question of negligence must be put to the jury. This court said, "In Texas a charitable institution's responsibility in tort is measured by the relationship existing toward the injured party. To those directly receiving benefits, such as a hospital patient, university student or other direct recipient, the liability is only for want of ordinary care in the selection and retention of employes or servants. To others not thus directly benefited, such as invitees, strangers,

or its own employes, liability is wholly governed by the rule of *respondent superior*"

The paying visitor at the football game was in this latter category and this intermediate court asserted the unqualified doctrine that "Charitable institutions are on the same basis as other corporations and individuals as to liability for negligence to those who are nonbeneficiaries."

But no, said the Texas supreme court when the case came up on appeal. Conceding only that "it seems definitely established in this state that a charity corporation is liable to an employe for injuries proximately caused by the negligence of its officers, vice principals or agents," the supreme court denied that the principle applied to invitees or strangers on the premises. Retreating to the classic theory of immunity on grounds of public policy, it expounded the well known argument that funds dedicated to a public charitable purpose must not be diverted to compensate for a mere private grievance and reiterated that the injured party has recourse against the individual responsible for the injury. If this individual is insolvent, too bad; but "the courts can not undertake to provide a solvent defendant for every wrong done." Thus the trial court judgment absolving the university was affirmed by the highest Texas court.¹

The same conclusion was reached in a subsequent case involving the Rice Institute at Houston where a girl spectator at a football game in Rice Stadium caught the high heel of her shoe in the crack between the planks of the platform near her seat so that she fell and received severe injuries. The jury returned a verdict

for \$20,000 damages to the girl and \$500 to her father but the trial court rendered judgment for the defendant institute, notwithstanding the verdict, and this judgment was affirmed by the court of civil appeals, expressly following the precedent set by the supreme court.²

When New York University was sued by a student who alleged he was injured by reason of defective instructional equipment and failure of the university to provide proper safeguards, the university answered that it was a charitable institution and that the negligence, if any, was of the professor in charge. The trial court held this answer insufficient in law and the appellate division approved this ruling and dismissed an appeal.³ This meant, of course, that the doctrine of charitable immunity is not a complete defense in New York and that the university must make further answer or lose by default.

A similar outcome appeared in California, where a student at Stanford University was seriously injured while participating in the annual "clean-up day" at a convalescent home on the campus, in accord with university custom. He was riding in the rear part of a pick-up truck on the way back to the academic campus, through a portion of the extensive university lands along San Francisco Creek, when he was shot in the eye with a "BB gun" by an unknown boy along the road, causing loss of the eye.

In the trial court he was met with a judgment of nonsuit; but the court of appeal reversed the judgment and held that the question of whether the university exercised due care in keeping its grounds safe should have gone to the jury. In this instance the court was impressed by testimony in the

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¹Southern Methodist University v. Clayton, 142 Tex. 179, 176 S. W. (2d) 749 (1944), reversing (Tex. Civ. App.) 172 S. W. (2d) 197 (1943).

²Scott et al. v. William M. Rice Institute, (Tex. Civ. App.), 178 S. W. (2d) 156 (1944).

³Weltman v. New York University, 264 App. Div. 907, 35 N. Y. S. (2d) 892 (1942).

record that, although the 9000 acre campus was a game refuge and hunting was forbidden, the use of BB guns and small rifles by boys in the vicinity where the injury occurred was known to have been promiscuous for two years or more. This seemed to raise serious question as to the efficiency of the campus policing and it was disclosed that when the injury occurred, only one campus policeman was on duty.⁴

STATE INSTITUTIONS

A laborer employed by the Texas Agricultural and Mechanical College at one of its experiment stations was given a spray pump and instructed to spray a building. He claimed that by reason of a defect in the pump liquid was squirted into his eye, causing loss of the eye. The trial court sustained a general exception to his petition but the court of civil appeals thought the case should go back for trial, declaring with vigor: "The proposition that the State owes to an employe the non-delegable duties of an employer is sustained by justice, logic and authoritative precedent" and "The right of control and direction should not be conferred without some legal obligation in respect thereto." The next higher court, however, elected to stand on the well worn doctrine of the immunity of the state while engaged in the performance of its governmental functions. Accordingly, it reversed the decision of the court of civil appeals and affirmed the judgment of the trial court, thus leaving the injured man with no remedy as against the state.⁵

Another demonstration of state immunity was made by a Texas court when a claimant, seeking to get possession of two tracts of land held by the University of Texas and damages for four months' rental aggregating \$600, brought a statutory action of trespass to try title. Dismissal of the suit was affirmed by the court of civil appeals, using the following words and reasoning: "The University and the Board of Regents are institutions of the State, and neither has any existence independent of the State. . . . Property belonging to the University of Texas is the property of the State."

Therefore, the state would be a necessary party to the suit, and the court was without jurisdiction to hear it unless the pleadings contained an allegation and showing of consent by the state to be sued.⁶

New York again affords an example of a less harsh theory. A Syracuse city policeman was injured on property of the New York State College of Forestry, adjacent to Syracuse University, while performing his duties in keeping order and preventing rowdiness at a night football game. He was part of a detail of 30 policemen sent to the premises at the request of the university. While posting his men at strategic points outside the stadium at about seven o'clock, before the floodlights had been turned on, he proceeded on foot at a moderate pace on a macadam roadway alongside the stadium. Unknown to him, a heavy chain had been stretched across the road and in the darkness he fell over it and was injured. There was no light or other warning signal at or near the chain. The road was on the campus of the State College of Forestry and the key to the chain was in possession of the dean or other employe of the college.

On first hearing of the injured man's claim, the case was dismissed for lack of technical compliance with provisions of the Court of Claims Act; but the legislature enacted a statute in 1943 authorizing the court to hear and determine the case notwithstanding. When the case eventually came for decision on the merits, an award of damages was made. Said the court of claims: "The State as well as the university owed to the claimant, in the performance of his requested duties, the exercise of reasonable care in the maintenance of its premises."⁷ This is in vivid contrast with the Texas holdings already noted.

RELATED CASES

At Edison Institute, philanthropic undertaking through which Henry Ford maintains an extensive museum of early American history, part of the service to visitors was free transportation in a horse drawn carriage. The plaintiff in this case used that service and, as she alighted from the carriage, the horses took fright at a thunderstorm and bolted. Her case first went

to trial before a jury on the facts alone and there was a verdict for \$1000 damages. The trial court, upon subsequent proof of the nature of the defendant corporation, rendered judgment in favor of the defendant, *non obstante veredicto*, and the judgment was affirmed by the supreme court of Michigan . . . "in this State a charitable institution is not liable to a beneficiary for the torts of its servants, unless it was negligent in the selection and retention of the employes and the instrumentalities used by it in carrying on its benevolent purposes."⁸

For the amusement and edification of visitors to the zoological park maintained by the Cleveland Museum of Natural History, the zoo offered short rides in a howdah on the back of Osa, the elephant. Although the zoo had an experienced elephant handler, it allowed these rides to be conducted by a keeper who knew little about elephants.

On the day of the accident in which two children were injured, a passenger demanded to dismount immediately, saying there was something wrong with Osa. The plaintiff children were thereupon put aboard Osa who suddenly bolted.

The trial court verdicts and judgments for each of the plaintiffs were reversed by the court of appeals. In turn, the Ohio supreme court reversed the court of appeals and affirmed the trial court judgments on the theory that the verdicts were not against the weight of the evidence and, even though the owner of the elephant was a charitable institution, it was liable for lack of ordinary care in assigning an employe to handle and control the animal.⁹

Erosion of the harsh common law doctrines of charitable immunity and "the king can do no wrong" is taking place but its progress is slow and inconclusive. It is conceivable that the trend may be overtaken by an expansion of the application of social insurance to cover all injuries to innocent parties by state or charitable institutions. There is already partial coverage under workmen's compensation laws. The extension of humane provisions of that nature is not, of course, the function of courts but of legislatures.

⁸De Groot v. Edison Institute, 306 Mich. 339, 10 N. W. (2d) 907 (1943).

⁹Newman v. Cleveland Museum of Natural History, 143 Ohio St. 369, 55 N. E. (2d) 575 (1944).

⁴Stockwell v. Board of Trustees of Leland Stanford Junior University, (Cal. App.), 148 P. (2d) 405 (1944).

⁵State v. Morgan, (Tex. Com. App.) 170 S. W. (2d) 652 (1943), reversing (Tex. Civ. App.), 170 S. W. (2d) 648 (1943).

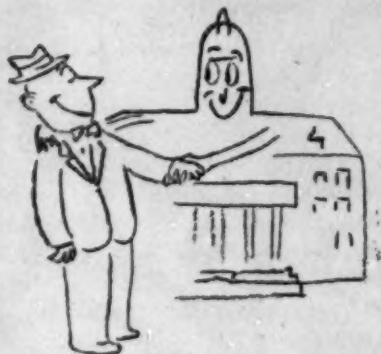
⁶Walsh v. University of Texas, (Tex. Civ. App.), 169 S. W. (2d) 993 (1943).

⁷Leahy v. State, (N. Y. Ct. Claims), 46 N. Y. S. (2d) 310 (1944).

THE ROVING REPORTER

The College and You

Through publication of an employes' handbook entitled, "The College and You," Pennsylvania State College has indicated a keen appreciation of the importance of good personnel



relations in building a greater Penn State. In the booklet's pages are helpful bits of information to aid the employe, new or old, in understanding better his benefits, rights and privileges as a Penn State employe.

The booklet is divided into 10 sections: a brief history of the college, salaries and wages, security benefits, educational opportunities, recreation, religious services, map of the campus, traffic regulations, instructions on emergencies and other information.



Supplementing text copy in the booklet are humorous drawings to emphasize various employe benefits and privileges. The booklet was developed under the direction of Frank F. Morris, personnel officer at Penn State.

Professor's Word

Forty-three grinning veterans lounged comfortably in their double decker beds at the Marietta College fieldhouse recently while Professor John E. Sandt calmly served them breakfast in bed. Director of men's dormitories as well as assistant professor of mathematics and astronomy at the college, he had promised the men that the seven former army build-

ings being re-erected on the main campus would be ready December 15. Because completion of the buildings had been promised by the contractor at intervals since October 4, the men met the announcement with appropriate sounds of disbelief.

"All right," said Professor Sandt, "if you aren't in those buildings by December 15, I'll serve your breakfast in bed."

And that's what he did.

Nothing Wasted

Early Chicago sidewalks were laid out in stone slabs rather than in concrete. Capitalizing on this fact, the University of Chicago superintendent of buildings and grounds, Lyman R. Flook, has arranged for Chicago contractors to deliver the old stone slabs to the university when the sidewalks are torn up for replacement.

Mr. Flook reports that he has been able to place stone sidewalks throughout the campus, thereby reducing maintenance. Contractors have been happy to deliver the old stone slabs to the university as it solves a disposal problem for them. This arrangement is in force with most of the large contractors in the Chicago area and has been valuable to the university in making possible the installation of stone walks at minimum cost.

Club Service

Alabama College for Women at Montevallo has devised a club service that has become a definite public relations asset to the college and a benefit to the club women of Alabama.

The rôle of a woman's club is determined by its program of study. The success of its program depends largely upon the thought, experience and work that are put into its planning. To meet such needs, Club Service offers to all clubs of the state program outlines in 50 or 60 fields. Outlines and materials are provided for an individual program or to cover a year's work. Included is the loan of books, magazines and reference works.

Report Card for Professor

At the University of Connecticut students may directly influence a professor's salary, according to Dean Charles B. Gentry who has requested 500 students to give their opinions of professors they had during the last semester.

If the results are deemed reliable, Dr. Gentry said, the plan may have an important part in granting pay increases to faculty members. He reported that students had been "most candid" in evaluation of their professors.

Problem in Submarginal Math

Take a school with 2707 students in a small community. One year later, crowd into it 6000 students demanding housing, instruction, recreation, study space and food. Admitting the facilities might somehow accommodate 4000 students, what do you do with the 2000 left over?

That was the problem faced recently by the State College of Washington. To tell its solution to the public, the college printed a folder graphically describing the efforts needed to hurdle all the obstacles. In breezy style it reveals the ingenuity employed

CLASS SPACE



by the administration in showing how it was possible to take care of 6000 students where, according to all the factors, there were space and facilities for only 4000.

Lesson to be learned: Meet your problems, solve them, tell your constituency how you did it. It is good public relations.

QUESTIONS AND ANSWERS

Maintenance Responsibilities

Question: What are the functions or objectives of the buildings and grounds department and what authority should the superintendent exercise in its administration in relationship to the rest of the college?—C.C.B., Mich.

ANSWER: At the University of Rochester, the department of buildings and grounds operates and maintains the complete physical plant and grounds. In detail, services rendered include the following:

Cleaning of and alterations to buildings; interior and exterior painting; carpenter and furniture repairs; maintenance of plumbing, water, gas and heating services and equipment; heat generation and supply; maintenance of electrical equipment, motors, wiring, transformers, switchboards, public address and intercommunication systems, elevators, clocks, campus street lighting; repair and maintenance of automotive equipment, including trucks, tractors, automobiles and lawn mowers; electric and acetylene welding; care of lawns, roads, walks, trees, shrubs, athletic fields, tennis courts; transplanting of trees and shrubs; removal of snow from roads and walks; general trucking service, including interlibrary book deliveries, intercampus deliveries of furniture, equipment and supplies; operation of mail service, including post office pickup, sorting and intercampus deliveries of U. S. and intramural mail to all buildings; sympathetic advice and counsel to faculty on alterations and improvements.

The superintendent is completely responsible to the treasurer of the university for the proper execution of these functions and the preparation and balancing of the annual budget of cost for these services.—C. A. LIVINGSTON, *superintendent of buildings and grounds, University of Rochester.*

Mechanical Accounting

Question: What are suitable business machines for posting entries in the student account ledger?—C.S., Ill.

ANSWER: The answer to this question will depend largely upon the volume of posting. In many schools with veteran accounts numbering in the thousands, the use of punch card ac-

counting machines for the posting of the charges to the student account ledger has been reported as very satisfactory. Where the volume is not as great, many of the so-called "typewriter-bookkeeping machines" are suitable for this job.

When planning the accounting system for accounts receivable ledgers it is usually the aim to obtain not only a listing of all accounts charged but an automatic proof of the postings for the control of the subsidiary ledger. It is possible also to use a simple adding machine for posting the accounts receivable charges and credits if the machine has a movable carriage.—W. A. BODDEN, *treasurer and controller, Smith College.*

Money for Women's Colleges

Question: Why don't women's colleges get financial support as readily as the men's colleges?—D.M.N., Mich.

ANSWER: There are people living even today who have to be convinced that women should receive higher education. Smith College was the first college founded with the basic idea of offering an education to young women equivalent to that offered young men. That was only 75 years ago while colleges for men go back many centuries. Thus the relative newness of women's colleges deters some people from giving to them. They prefer to give to long established, famous men's colleges and universities.

There is a style in giving. A college that has been given a great deal will inevitably be given more for the very reason that the idea of giving to that college is popular or distinctive. Women themselves give their money to men's colleges to an alarming degree. If a woman is giving her husband's money to education she feels that it ought to go to his college, even when she has a college of her own. There are women who are not interested in higher education for women or in women's colleges. There are women who would only give to famous colleges for men because they like the sound of it. There is a snob appeal in giving, too. If the tremendous giving power of women is ever

turned to colleges for women then the men's colleges can begin to worry!—ALICE VOSBURGH, *director of publicity, Smith College.*

Location of Alumni Office

Question: Do you consider it advisable for the alumni office to be located in the college union building?—T.M.J., Conn.

ANSWER: Although in many college union buildings space has been set aside for alumni offices, it is worthy of note that the present trend seems to be in the other direction. The union is primarily the student union, the recreational and social center of student activities. It is my belief that the essential purpose of a union loses in real degree when other than strictly student agencies are included in the building.

More and more it is being proved that facilities set aside for student activities are inadequate. More and more, as at Cornell University, buildings that seemed ample in size a few years ago are now crowded and cramped to such an extent that an addition is necessary.

I well realize that the connection between students and alumni is, and should be, close. It is important that undergraduates have a general knowledge of alumni affairs and a feeling of contact with them. My own realization of that connection is perhaps the keener because for some years I was at once the executive officer of alumni affairs and the director of Willard Straight Hall, our college union.

We believe it is desirable that visiting alumni make use of the union's facilities for informal contacts, overnight accommodations, meetings, dinners, in day to day use as well as at reunions and on such special occasions as football games. But the alumni offices, it seems to many of us, should better be in another building.

The plans for extension of Willard Straight Hall have at no time contemplated the inclusion of alumni offices. The new administration building at Cornell, now nearing completion, includes generous space for them.—FOSTER M. COFFIN, *director, Willard Straight Hall, Cornell University.*

NEWS

Official Report on Purdue Bleachers Tragedy . . . V.A. to Advance Payments to Nonprofit Colleges . . . Dormitories Added to Vet Housing Program . . . F.P.H.A. Housing Plans for Campuses . . . Subsistence Payments Argued . . . Carnegie Study

V.A. Announces Plan of Advance Payments to Nonprofit Colleges

The Veterans Administration is now providing for the payment to nonprofit colleges and universities, at the beginning of any semester or quarter, of 75 per cent of the tuition and allowable charges of veterans enrolled under the G. I. bill.

On or before the fifteenth day of any term, semester or quarter, the institution may submit its voucher for the estimated total charges for tuition, fees, books, supplies and equipment for all eligible veterans enrolled in the institution under Public Law 346. The basis of determining the amount to be paid by V. A. has been kept simple.

The actual number of students enrolled under P. L. 346 is reported as of the date of the voucher and either the per veteran cost of the foregoing items or the actual cost during the current term.

At the end of the term, the college submits an exact voucher for the balance. If the estimate is more than the amount of the final voucher, the institution must refund the difference.

To procure advance payment, the institution must enter into contract with V. A. Complete copies of Bulletin 7-27 announcing the new policy and including the forms of contract are available at regional offices.

Surplus Property for Veterans

Presentation of army or navy discharge papers is all that is now necessary for veterans to purchase surplus property on the veterans' set-aside list for personal use, according to an announcement of War Assets Administration on March 1.

Would Extend Time Entitlement

A bill (S. 717) has been introduced in the Senate to extend the time entitlement of the veteran for education and training by including as active duty all leave during which military personnel received compensation from the armed forces.

Construction Controls Are Being Eased

The Civilian Production Administration of the Office of Emergency Controls has recently announced a number of changes tending to remove or decrease the extent of government control.

On February 28 and March 3 and 4, C.P.A. reissued, with its new amendments, PR 1, PR 3 and PR 33, together with Schedules A and B of PR 33. Also issued on these dates were a new PR 35, Directive 2 to VHP I, and Supplement I and Table I to PR 28. In brief, these official statements of policy revoke priorities on hardwood lumber for flooring and all production controls on lumber and millwork; describe the necessary procedures for changing previous preference ratings and for applying for new ones, and list the items on which preference ratings are still given.

Hearings Begun on New Federal Department

One day hearings were held on February 28 on the proposed legislation to establish a Department of Health, Education and Security in the federal government. The hearings on S. 140 and S. 172 will be resumed later; the fact that they were held indicates the interest of the Congress in the matter.

College Housing Bills Before 80th Congress

The House committees on banking and currency and on public works have before them a number of bills dealing with housing.

Perhaps the most important for colleges and universities are: the President's request for an extension of the Lanham Act to July 1, 1948, thus extending the period during which temporary facilities may be acquired for re-use, the authorization for transfer of housing provided under the Act of October 1940, without consideration but without cost to the United States to states and local governments for schools, hospitals or other public use; and H.R. 1750 (Companion Bill S. 701) which would extend the function of the U. S. Public Housing Authority and provide funds for the erection of housing projects for low-rental veterans' homes (not to exceed \$50 a month) in communities in which such homes are not being provided by private initiative.

Veterans' Housing Program Adds Dormitories to List

Dormitories have been added to the list of structures for which building permits will be granted under the amended Supplement 5 to Veterans' Housing Program Order 1, issued February 13.

Applications by educational institutions or by public organizations for any kind of residential accommodations to be built by them, as well as applications for single person residential accommodations to be built or converted under the sponsorship of an educational institution, should be filed at proper F.P.H.A. regional offices.

Hearings Completed on Subsistence Payments

The House committee on veterans' affairs has completed hearings on the ceiling for subsistence payments in relation to earned income. The changes approved by the committee are included in H.R. 246.

The proposed bill raises the ceiling of combined subsistence and earned income from its present \$175 per month for veterans with no dependents to \$250, and from \$200 per month to veterans with dependents to \$325 with one dependent and \$350 per month with two or more dependents. Thus, a veteran with no dependents can, under the proposed bill, earn \$185 per month and receive his full subsistence amount from the Veterans Administration. Under existing legislation, if he earned \$185 per month, he would receive only \$15 per month through subsistence payments.

The proposed bill also extends to four years, instead of the present two years, the period for on-the-job training.

On February 24, hearings were begun on the several proposals to increase subsistence payments to veterans in education and training. Although individual veterans and the American Veterans Committee have urged increase in monthly payments, there seems little enthusiasm on the part of the majority of the congressional committee members for any increase other than for veteran students with dependent children.

Seeks More Subsistence Aid for Disabled Vets

Edith Nourse Rogers of Massachusetts has introduced a bill to increase minimum subsistence payments to disabled veterans. It would increase the present minimum of \$105 per month for a totally disabled veteran with no dependents to \$115 and give larger increases to veterans with dependents. The present amount of \$115 for veterans with one dependent would be raised to \$145 per month; the \$10 for the first child and \$7.50 for each additional child would be doubled, and the veteran would receive \$20 for a dependent parent as compared with the present \$15 per month.

Disabled veterans in education or training would continue to receive their benefits under the G.I. bill, plus

their disability payments based on the new minimum. Thus a veteran who has a 20 per cent service connected disability would receive, if there is no change in present subsistence payments under the G.I. bill, \$65 per month plus \$23, or a total of \$88. A veteran with one dependent would receive \$90 per month plus \$29.

Veterans in Education and Training Now Approach 2,500,000

The February 28th report of the Veterans Administration shows the number of veterans now in education and training number 2,497,010. A little more than 70 per cent are in institutional training and of this group 65 per cent, or a little less than 1,200,000, are in colleges and universities.

A significant fact shown in the report is the sharp increase in the number of veterans who had completed or discontinued their training during the month of February. If the number withdrawing is in the same proportion as the number enrolled, this indicates that during the three months, December to February inclusive, some 250,000 veteran students discontinued their college education. Unfortunately, no comprehensive data are available at the present time as to the chief cause or causes for such discontinuance.

The Carnegie Foundation for the Advancement of Teaching recently announced initiation of a study of veterans in college. It is hoped that this study will provide factual data on the factors which cause veterans to drop out.

A possible alleviation of financial difficulties of veterans, when they exist, may come through the passage of Congresswoman Rogers' proposed bill to make it possible for all veterans to cash their G.I. bonds for terminal leave.

Syracuse Loss Set at \$2,000,000

Chancellor William P. Tolley estimates that it will cost \$2,000,000 to replace Syracuse University's Archbold Gymnasium and equipment which were recently destroyed by fire. Cost of the original structure was \$400,000. The gymnasium was dedicated 40 years ago as a memorial to John Archbold, university benefactor and former associate of John D. Rockefeller.

Carnegie Study Seeks Effects on G.I. Bill on Education

A comprehensive study of the much discussed question as to whether veterans make better college students than nonveterans has been jointly initiated by the Carnegie Foundation for the Advancement of Teaching and Carnegie Corporation of New York, according to an announcement by Dr. O. C. Carmichael, president of the foundation.

The College Entrance Examination Board will conduct the study for the foundation with approximately a dozen colleges and universities throughout the country being invited to participate. The group will be chosen on a broad geographical basis and will include both large and small colleges as well as men's and co-educational institutions.

By comparing scientifically selected samplings of veteran and nonveteran students now in college, the study will seek to answer such basic questions as the following: Do veterans in general make better students than nonveterans? How do factors like age, nature of military experience and marital status relate to quality of academic work? What types of veterans seem to succeed and why?

To determine the effect of the G.I. Bill of Rights in removing the economic barriers to college education, the study will also compare the academic performance of those who wanted to go to college and would have gone without the G.I. bill and that of those who wanted to go but could not have gone without the G.I. bill. The effects of having a college education interrupted by the war will be explored also.

15,000 "Prefabs" Contracted for

The Office of the Housing Expediter, Frank H. Creedon, has announced that negotiations have been completed for a guaranteed market contract for the Lustron Corporation to produce 15,000 porcelain steel houses this year. One model (Esquire) is a two bedroom bungalow and will sell complete, except for land, for \$7100. The other model will be less expensive and plans for it will be submitted for approval to the Housing Expediter.

What Caused Bleachers to Collapse at Purdue University

The recent collapse of a bleacher at Purdue University in the course of a basketball game resulting in the death of three students and injuries to more than 250 other students has brought into sharp focus the matter of student safety.

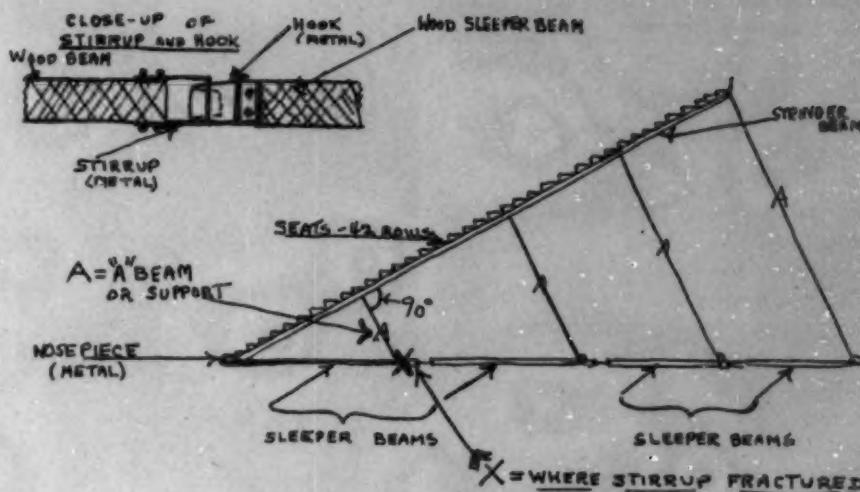
Governor Ralph F. Gates and Allison E. Stuart, president of the board of trustees, immediately appointed a committee to determine the cause. The results of this official investigating committee have in their essential parts been made available to COLLEGE and UNIVERSITY BUSINESS.

At the time that the bleachers collapsed there were 3585 in the stands, which were said to be rated to handle 3900 spectators. The bleachers were built up to 42 rows, with the back row 17½ feet above the floor. The bleachers were of standard type construction, which as a rule does not carry in excess of 20 rows. The university was assured that adding the additional rows would not affect the safety factor of the bleachers.

According to Purdue University, the bleachers as delivered were represented to be in accordance with proper specifications set up by the company to equal the requirements of the state of Indiana code for such an installation. Tests following the accident revealed no evidence of lumber failure.

In setting up the bleachers, the cross beams from the front row up to the back row known as the "stringers" are set in a notched A frame, the two legs or supports of which reach to the floor or ground. At the foot of the stringer it is fitted into a nosepiece of iron or steel which keeps the stringer from sliding forward. In order to prevent the A frames from slipping, as a result of movement in the stands, a sleeper board is run along the floor from the nosepiece back under the very last row. U brackets are bolted to this "sleeper" board, so that a beam may be run along the floor, parallel to the seats above. This beam, anchored by the U clamp on the sleeper beam, prevents the A frame from sliding backwards.

Because of the number of rows in the Purdue bleacher installation, it was not possible to carry a single "sleeper" beam along the floor from the nose-



Schematic drawing of Purdue bleacher.

piece in the first row back to a spot under the 42d row. Consequently, four sleeper beams were used in series, connected by an iron stirrup and U shaped hook. Investigation following the accident revealed that the iron stirrup had fractured as a result of the thrust upon it and that the hooks had been straightened out but not broken.

Engineers testing the iron stirrup discovered that the ironwork varied from ingot iron to mild steel. A lack of uniformity in the quality of the angle iron stirrups as far as the metal itself was concerned seemed to have been the cause for its failure. The stirrups were cold formed by hydraulic presses, which investigators felt had resulted in weakening the stirrup in the process of its manufacture.

In addition, the stirrup had been manufactured with 90° angles or corners and, as a result of what investigators reported was a faulty die, a slight nick was evident in the two corners. The investigators recommended that the stirrup should be rounded in shape so as to reduce the strain on the sharp corners or angles. The thrust caused by the weight of 42 rows on a standard installation was more than the iron stirrups could carry and they fractured. The result was that the front sleeper board moved forward about five feet, permitting the A forms or supporting "horses" to fall forward. Collapse then became inevitable and complete.

Purdue University as a state supported institution, carried no liability insurance. By virtue of its sovereign immunity from suit, the state cannot be sued without its permission.

The official investigating committee unanimously concluded as follows:

1. The initial failure occurred in the south central portion of the grandstand and spread radially.

2. The failure resulted from the breaking or failure of the foremost metal hook and stirrup connection on the sleepers in the south central portion (specifically on the 9th and 10th sleepers from the south end). The remaining foremost sleeper metal hook and stirrup connections in this front line then failed successively allowing the structure to be thrust forward and downward by the load, displacing the A frames that supported the stringers, which then broke at several places owing to bending and lateral displacement.

3. The physical tests of 15 undamaged typical sleeper metal hook and stirrup connections (from this, as well as the undamaged, grandstand) show that their capacity was not sufficient to withstand the force shown to be acting on the foremost line of connections.

4. The fractures of two adjacent broken sleeper metal hook and stirrup connections in the region of the initial failure show an oxidized condition, indicating that partial fracture had occurred previous to the final failure.

Attorneys for the bleacher manufacturer charged that Purdue altered the structure to prevent its obstructing a running track. The head of the official investigating committee asserted that these alterations had no effect on the strength of the structure and were made a considerable distance from the initial point of collapse.

Amendments to Rules on Housing Permits

The Office of the Housing Expediter on February 13 issued amendments to Housing Permit Regulation (Part 806) and to Priorities Regulations (HEPR-5) which continue the special provisions for educational institutions.

The revised HPR provides that educational institutions or a person under the sponsorship of such institutions may be given a permit to construct, repair or alter a dormitory or single-person housing facility for student veterans.

However, an application for new construction will not be approved if the maximum rent proposed is more than the amount charged for comparable accommodations in the area.

If the application is made by a person under the sponsorship of an educational institution, the application must be accompanied by a letter from that institution which (1) requests that the application be approved; (2) states that there is not a sufficient number of available rooms in the community for its student veterans, and (3) represents that the institution will refer student veterans to the proposed accommodations as long as this section is in effect.

The revision of HEPR-5 includes the provision for equivalency originally provided for in CPA Priorities Regulation 33. This permits an educational institution to make 40 per cent of the accommodations in a dormitory available to nonveterans if it makes available to veterans an equivalent number of similar or better accommodations in other dormitories at rents not larger than the rents specified in the application as approved.

V.A. Guidance Center Opens at Marietta

A Veterans Administration guidance center opened this month at Marietta College under the directorship of John F. Whan, former vocational adviser at the V.A. regional office in Cincinnati. Operated jointly by the V.A. and the college, the new center will provide educational and vocational guidance for veterans of Washington, Monroe and Noble counties.

The center's complete guidance service is free to all veterans covered by Public Laws 16 and 346.



GROUND is being broken for a memorial library at Villanova College, part of a \$1,200,000 building program, which includes a chemical engineering building and a naval science armory. The structures will be ready for occupancy by September 1948, it is asserted.

F.P.H.A. Housing Plans for Campuses

On February 28, President Truman transmitted to the Congress a request for \$50,000,000 additional funds for F.P.H.A. to complete all housing units now under contract, including those suspended since Dec. 14, 1946, and those that were canceled on previous cutbacks.

The request also provides for reimbursement to educational institutions and other public bodies for expenditure of their own funds for the completion of units which would otherwise have been canceled and also for the cost of utility and other site work performed by them in connection with veterans' temporary housing on a reimbursable basis.

The request was referred to the House committee on banking and currency. Congressman Carrol of Colorado has introduced H.R. 2340 to carry out the President's request.

If this proposed bill is passed, additional legislation will be required to procure the necessary appropriation.

Interest is developing in the Congress for legislation which would authorize F.P.H.A., on the request of educational institutions, to transfer all title to F.P.H.A. housing to the institution. This would also free such buildings from the requirement in the Lanham Act which makes it mandatory to demolish temporary structures within two years after the termination of the war.

Columbia University Increases Salaries of Teaching Staff

A new schedule of academic salaries at Columbia University will result in increases to full time members of the instructional staff and, in some instances, to administrative officers, according to an announcement by Dr. Frank D. Fackenthal, acting president.

The new schedule of academic salaries now in effect for assistant professors and instructors and to be achieved for associate professors and professors as soon as feasible, follows:

Professors	\$9,000-\$15,000
Associate Professors	\$6,000-\$7,000
Assistant Professors	\$4,000-\$5,000
Instructors	\$2,500, \$3,000, \$3,500

The former schedule for the instructional staff called for salaries of from \$7500 to \$12,000 for professors; \$5000 to \$6000 for associate professors; \$3600 to \$4500 for assistant professors, and \$2400 to \$3000 for instructors.

It is estimated that about 700 members of the full time academic staff, in addition to university office workers and technicians, will be affected by the current increases. Maintenance employees have already received increases in pay.

Scientists Agree on Service Foundation

Representatives of 76 national educational and scientific organizations met in Washington on February 23 and agreed on basic principles of the proposed legislation to establish a National Science Foundation.

The 130 members of the inter-society committee on science foundation legislation agreed that a united front is essential if any of the six bills already introduced into the 80th Congress are to be enacted. Informal expressions of opinions on the fundamental differences between S. 525 (Thomas, Utah) and S. 526 (Smith and others) showed a plurality favoring a single administrator, an almost overwhelming majority favoring the inclusion of social science in research and unanimous approval of provision for scholarships and fellowships, including the social sciences.

Dr. Edmund E. Day, representing the American Association of State Universities and Land-Grant Colleges, was elected committee chairman.

Rutgers Extends Credit Hour System of Assessing Tuition

As a step toward standardizing tuition in all its units, Rutgers University will extend the credit hour system of assessing tuition to its men's colleges beginning this fall, it was announced recently. This system, under which the student pays according to his course schedule, will supplant the present fixed sum.

The rate of \$10 per credit hour has been worked out so that tuition on the average will be the same as it is under the present system. A student carrying a heavy load of subjects will pay more; those with fewer than average courses will pay less.

In the college of agriculture where the students have always paid a lower tuition fee because of special state and federal grants, the fee per credit hour will be \$6. In all units, nonresidents of New Jersey will pay an additional \$3 per credit hour. In addition to the tuition fee, students will pay a \$5 registration fee and a \$7 student activities fee per semester; seniors, a \$7 diploma fee. Breakage deposits are required of students living in dormitories and those taking laboratory courses.

V.F.W. Announces Educational Program

The Veterans of Foreign Wars has announced a 12 point program on education which it will sponsor on the national, state and local level. Those points affecting colleges primarily are:

1. Adequate housing for all veterans in institutions of learning.
2. Readjustment of subsistence ceilings for veterans with dependents attending school, under Public Law 346, in proportion to the government index of living.
3. Removal of the nine year time limitation within which a veteran must complete his educational program under provisions of Public Law 346.
4. An increase in the exchange of scholars among all nations, in order to create a better understanding among all peoples.

Other points in the program deal primarily with precollege education.

George T. Trial has been appointed national director of education, with offices in Washington, D. C.

F.W.A. Advances \$36,150 to Michigan School for Building

Michigan College of Mining and Technology has been advanced \$36,150 by Maj. Gen. Philip B. Fleming, Federal Works Administrator, to finance the preparation of drawings and specifications for a mineral industries building on the campus at Houghton, estimated to cost \$1,290,000.

The building is to house the departments of metallurgical engineering, mineral dressing, geological engineering and mining engineering. Its construction is contingent upon a legislative appropriation. The application states that the structure is to be reinforced concrete and steel, with stone trimmed brick facing, of approximately 1,500,000 cubic foot capacity. It is part of a campus improvement program providing for a number of additional buildings at Houghton.

W.A.A. Is Setting Up Customer Service Centers

The War Assets Administration announced on March 6 that in order to facilitate sales, 45 Customer Service Centers are now in full operation and 46 are in partial operation. A total of 100 will be established as a network throughout the country.

In each center complete files of all surplus materials in all regions will be available to prospective purchasers, together with samples and displays. Current information about all planned or advertised sales will be maintained, thus giving the buyer a complete bird's-eye view of the national sales picture. Personnel at the centers will provide information regarding priorities, applications and credit, and orders will be taken for purchases in any region.

Villanova Plans New Store

After more than 25 years' service, the Villanova College Store, better known to thousands of graduates and students as "The Pie Shop," soon will give way to new and more modern quarters.

The new store will be a T-shaped structure built from six steel sash frame buildings and will have more than 5000 square feet of floor space. It will include a cafeteria and recreation space for day students. The new buildings have been obtained from the War Assets Administration.

Hobart and William Smith Increase Student Fees, Benefits

Dr. Walter H. Durfee, acting president of Hobart and William Smith, has announced an increase in tuition from \$225 to \$250 a term, effective with the opening of the 1947 fall term.

The graduation fee is being increased also as is the infirmary fee. Offsetting the increase in the infirmary fee is the announcement that disability insurance with benefits up to \$500 for each disability is being provided for each student. Beginning with the fall term, each student will receive the new insurance protection in addition to infirmary care.

Pollock Library to Northeastern

Playwright Channing Pollock's private library, consisting of more than 3000 volumes, has been presented to Northeastern University by his daughter, Helen Channing Pollock, according to an announcement by President Carl S. Ell. The gift includes volumes on philosophy, science, history, politics, art and other subjects and will be the basis of a permanent memorial to the late Dr. Pollock. The library will be kept up to date by income from a fund established by friends of the playwright.

Names in the News



David Sharer has recently been named vice president and comptroller of DePaul University, Chicago. He has been a member of the faculty since 1926

and more recently has served as head of the accounting department, assistant dean and acting dean of the college of commerce.

Maj. Eugene A. Sullivan has been appointed president of State Teachers College at Worcester, Mass., to succeed the late Clinton E. Carpenter.

James Byron McCormick will succeed Alfred Atkinson as president of the University of Arizona on June 1 when President Atkinson retires. Robert L. Nugent, liberal arts college dean, has been appointed vice president of the university.

DIRECTORY OF ASSOCIATIONS

Associations of College and University Business Officers

Central Association

President: C. D. Simmons, University of Texas; vice president: Herbert Watkins, University of Michigan; secretary-treasurer: T. E. Blackwell, Washington University.

Executive Committee: A. W. Peterson, University of Wisconsin; Lawrence R. Lunden, University of Minnesota; H. H. Brooks, DePauw University; William B. Harrell, University of Chicago.

Convention: May 8-9, Chicago.

Eastern Association

President: R. C. Magrath, University of New Hampshire; vice president: George E. Van Dyke, Syracuse University; secretary-treasurer: Boardman Bump, Mount Holyoke College.

Executive Committee: Samuel F. Agnew, Western Reserve University; Morris Cochran, Brown University; J. G. Vann, North Carolina State College; Don C. Wheaton, Sweet Briar College; Ervin T. Brown, Rollins College.

Southern Association

President: W. Wilson Noyes, University System of Georgia; first vice president: George R. Kavanaugh, Berea College; second vice president: W. T. Ingram, Alabama Polytechnic Institute; third vice president: Howard MacGregor, Agnes Scott College; secretary-treasurer: Gerald D. Henderson, Vanderbilt University.

Executive Committee: Jamie Anthony, Georgia School of Technology; E. H. Fisher, Southeastern College; J. B. Payson, Columbia College; James F. Blair, Union College; C. B. Markham, Duke University.

Convention: April 18-19, Gulf Park College, Gulfport, Miss.

Western Association

President: J. Orville Lindstrom, University of Oregon; vice president: William Norton, University of California; secretary-treasurer: K. B. Sauls, Brigham Young University.

Executive Committee: O. D. Garrison, University of Idaho, Southern Branch; Nelson A. Wahlstrom, University of Washington; Robert D. Fisher, University of Southern California.

Convention: April 27-29, San Francisco.

Association of Business Officers in Negro Colleges

President: G. Leon Netterville Jr., Southern University; vice president: Ishak Creswell, Fisk University; secretary: V. D. Johnston, Howard University; treasurer: Mark Birchette, Dillard University.

Executive Committee: Don A. Davis, Hampton Institute; Viola Means, South Carolina State College; L. H. Foster Sr., Virginia State College; W. A. Morgan, Bishop College.

Educational Buyers Association

President: James J. Ritterskamp Jr., Washington University; vice president: Gerald D. Henderson, Vanderbilt University;

vice president: Charles Hoff, University of Omaha; vice president: H. B. Bentsen, George Williams College; treasurer: Edward K. Taylor, Cornell University Medical College; executive secretary: Bert C. Ahrens.

Convention: May 1-3, Omaha, Neb.

Association of Superintendents of Buildings and Grounds of Universities and Colleges

President: L. F. Seaton, University of Nebraska; vice president: Paul H. Elleman, Ohio State University; secretary-treasurer: A. F. Gallistel, University of Wisconsin.

Executive Committee: L. F. Seaton, University of Nebraska; Paul H. Elleman, Ohio State University; A. F. Gallistel, University of Wisconsin; Henry E. Pearson, Indiana University; John J. Colgate, University of Pennsylvania.

Convention: May 12-14, Ohio State University, Columbus.

Association of College Unions

President: D. R. Matthews, University of Florida; vice president: Douglas O. Woodruff, University of Utah; secretary-treasurer: Edgar Whiting, Cornell University; editor: Porter Butts, University of Wisconsin.

Convention: April 10-12, Illinois Union, University of Illinois, Urbana.

American College Public Relations Association

President: Harold K. Schellenger, Ohio State University; vice presidents: research, E. Ross Bartley, Indiana University; membership, W. Henry Johnston, Colgate University; regions, Horace Renegar, Tulane University; radio, Elmer G. Sulzer, University of Kentucky; athletics, William H. Wranek, University of Virginia; secretary-treasurer: Max E. Hannum, Franklin and Marshall.

Publications: editor, Lorena Drummond, Southern Illinois Normal University; associate editor, Paul Faris, Hendrix College; business manager, Roy K. Wilson, National Education Association.

Convention: May 14-17, Coronado Hotel, St. Louis.

National Association of College Stores

President: Norman M. Gay, Boston University Book Stores; vice president: A. W. Littlefield, Barnes and Noble, Inc., New York City; immediate past president: E. C. Rether, University Cooperative Society, Austin, Tex.; directors: Fred Davis, The Citadel Canteen, Charleston, S. C.; John H. Jenkins, St. Louis University Book Stores, St. Louis; H. H. Hays, Berea College Store, Berea, Ky.; George Racine, Student Book Exchange, Evanston, Ill.; manufacturer's representative: Charles Lofgren, Sanford Ink Co., Chicago; executive secretary: Russell Reynolds, 189 W. Madison St., Chicago.

Convention: April 27-30, Hotel Statler, Cleveland.



Dr. William E. Shaw, president of Illinois Wesleyan University since 1939, died in February of a heart attack shortly after addressing an alumni meeting in Chicago.

J. L. Zwingle has been named president of Park College to succeed George Irwin Robrbough on June 30. President-Elect Zwingle was former regional executive for the U.S.O. in Atlanta, Ga.

Dr. Robert Gordon Sproul, president of the University of California, early in February declined the \$25,000 a year post of president of Columbia University. Dr. Sproul who makes \$15,000 at California plus some allowances declined the presidency of a San Francisco bank at \$50,000 annually a few years ago.

Rosemary Park has been appointed president of Connecticut College to succeed Katherine Blunt. The appointment was effective February 21.

Arthur R. Ford has been appointed chancellor of the University of Western Ontario, succeeding the late G. Howard Ferguson. Mr. Ford was formerly editor in chief of the *London Free Press*, London, Ont.

Walter Randall Marsh, headmaster of St. Paul's School in Garden City, New York, died of a heart attack on February 23. He was 79 years of age.

Adm. William F. Halsey has been appointed to head a national drive for funds for the University of Virginia, Rector Edward R. Stettinius Jr. has announced.

President Dwight O. W. Moore of Morgan College, Baltimore, gave the chief address recently at the 80th anniversary celebration of Howard University. Dr. Moore, 70, was graduated by Howard in 1901.

Tom E. Shearer, associate professor of economics at Parsons College, has been appointed vice president of the institution to fill an executive vacancy caused by the resignation of President Herbert C. Mayer. Mr. Shearer's appointment extends to June 15 at which time Dr. Mayer's resignation will become fully effective. Dr. Mayer is now on leave of absence.

PRODUCT INFORMATION

Information on the materials, equipment and supplies with which an institution is built, operated and maintained and which are used in its various departments is of vital interest to those charged with the business operation. College and University Business recognizes the importance of this information and believes it has rendered a real service by grouping manufacturers' announcements and new product descriptions into a separate part of the magazine. We believe this is an infinitely better plan than to mix such information through the editorial pages where it becomes obscure and confusing.

You will find manufacturers' advertisements from pages 45 through 72. Pages 68-71 contain descriptions of new products and items of interest. Further details on any product advertised or described may be obtained without obligation and with a minimum of effort by use of the postcard below.

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132	Harold Supply Company Catalog of Furnishings, Equip- ment
133	Lustra Corporation of America Bulletin on Lamps for Rugged Duty
134	Wakefield Brass Co., F. W. Booklet on Classroom Lighting
135	Electric-Aire Engineering Corporation Electric Hand Dryer
136	Powers Regulator Company Catalog on Regulators, Mixing Valves for Water Temperature Control
137	Ward's Natural Science Establishment Catalog of Supply Services in Ba- tology
138	Auth Electric Company, Inc. Program Clock System
139	Bellevue Industrial Furnace Company Catalog on Kilns for Firing Pottery

March, 1947

Please ask the manufacturers, indicated by the numbers I have circled, to send further literature and information provided there is no charge or obligation.

WHAT'S NEW

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NAME	TITLE
INSTITUTION	
ADDRESS	CITY
	ZONE STATE



New High School, Rochester, N. H.

FOR GRADE

FLOORING

HOOD RESILIENT TILE

School floors must be Grade "A" if they are to bear the ever increasing traffic burden America now imposes upon them. Under the careless and repeated pounding of scuffing, scraping, grinding feet, they must stay attractive, be easy to maintain and wear indefinitely.

With Hood Rubber or Asphalt Tile this is exactly what you get because Hood makes only Grade "A" resilient flooring. B. F. Goodrich research ability combines with Hood manufacturing skill to give you more for your money. Specialized Hood methods and machinery create the *Super-Density* that eliminates dirt-catching pores, makes maintenance easier and keeps colors bright. Hood resiliency absorbs shock and vibration; assures the safe, quiet, comfortable flooring so desirable in modern schools.

In your modernization plans for new or old buildings, you can count on Hood for modern flooring that will look better, last longer, stay cleaner and be more comfortable. Send today for the new Hood Flooring Catalog. It shows in color what so many schools are doing with Hood Rubber or Asphalt Tile—leader since 1925.





IS YOUR SCHOOL *washing behind* **ITS EARS!**

Washrooms, like Junior's ears, are not something to be skipped over lightly. Together with classrooms and corridors, they're vital parts of the school set-up—can be a shining reflection of school sanitation standards—an important factor in helping to protect young America's health.

That's why hundreds of schools the country over depend on West Products for maintaining healthfully clean institutions, and do so at a minimum expense for material and labor.

More than 475 West representatives from Coast-to-Coast are equipped to advise and serve you.



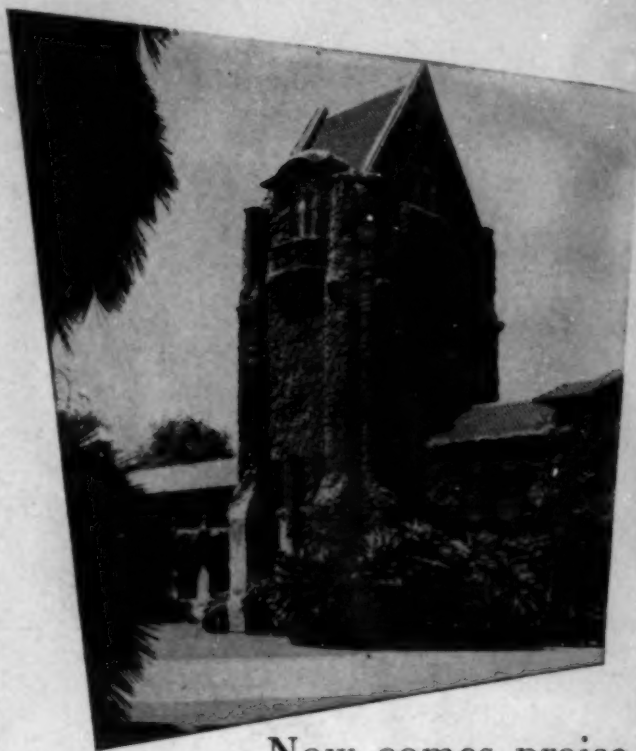
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PAPER TOWELS • AUTOMATIC DEODORIZING APPLIANCES • LIQUID SOAPS

SAN JOSE STATE COLLEGE • SAN JOSE, CALIF.



Now comes praise
from San Jose for

CARILLONIC BELLS

We who have developed this electronic carillon well know its unusual and appealing beauty of tone. But we are always gratified when one of the many institutions having CARILLONIC BELLS writes us in praise of it. Read what Professor Rhodes of San Jose State College wrote us:

"We are highly pleased with 'Carilronic Bells.' The students feel they contribute to the pleasant atmosphere of the campus; and in the opinion of several members of the faculty, acquainted with bells in this country and Europe, 'Carilronic Bells' equals or surpasses the fine carillons they have heard.

"I want to congratulate you on a fine piece of engineering design and manufacture, and to express my appreciation to your installation engineer for his resourcefulness and genuine concern that every detail be absolutely right."

When you plan to install a carillon, *choose by ear*. You'll quickly decide on the finer tone beauty of CARILLONIC BELLS—and this superb electronic instrument can be played either from the tower or with your organ. Write us; Dept. Col-3.



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ELECTRONICS, INC.
SELLERSVILLE, PA.

"CARILLONIC BELLS" • TOWER MUSIC SYSTEMS • ACOUSTIC CORRECTION UNITS
SOUND DISTRIBUTION SYSTEMS • CHURCH HEARING AIDS



WOOD

*Unexcelled for
friendly warmth*



CARROM FURNITURE CRAFTSMEN

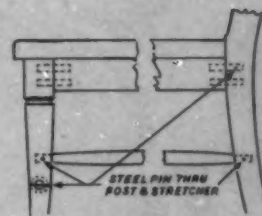
Build FOR THE DECADES

Attractive, well-made Wood Furniture combines, to a high degree, both literal and figurative warmth and friendliness. From a practical, physical standpoint wood, because it is to a great extent a non-conductor of heat, has a friendly, comfortable "feel" that invites use. But over and above this . . . wood possesses a natural emotional warmth that is normally generated by intimate, friendly things.

Carrom Wood Furniture possesses, in a great measure, these characteristics of "Friendly Warmth" . . . appealing to the natural instincts of the average person. This is especially desirable for institutional use

where the individual finds himself more or less remotely situated from home and friends. Both physically and psychologically, he enjoys the gracious and beneficial influence of "friendly warmth", generated by the ageless spirit and fibre of WOOD!

Carrom Wood Furniture is made especially to meet institutional needs . . . college and nurses' dormitories, hospital rooms, ward or lounge. Whether used to furnish an entire building or just a room, its basic styling, simple lines, functional adaptability and strong construction combine with its inviting atmosphere of "friendly warmth" to provide a maximum degree of intrinsic worth.



**RAILS PINNED
TO POSTS**

It is not enough that Carrom posts, legs and rails have a tight drive-fit. As further assurance of serviceability, a wood pin or metal insert is driven through the joined part to engage the post, leg or rail and hold it more securely.

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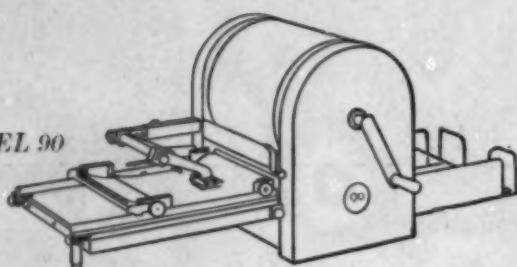
CARROM



**WOOD FURNITURE
FOR DORMITORY SERVICE**

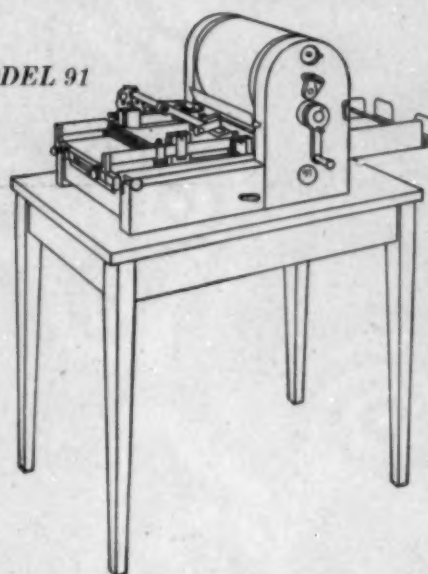
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hand-operated Mimeograph
brand duplicators*

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Within one working week (or less) after you place your order, your new Mimeograph brand duplicator will be working for you—turning out those crisp, clear, low-cost copies . . . in color or in black-and-white . . . speeding the production and reducing the cost of paper work . . . with results you're proud of.

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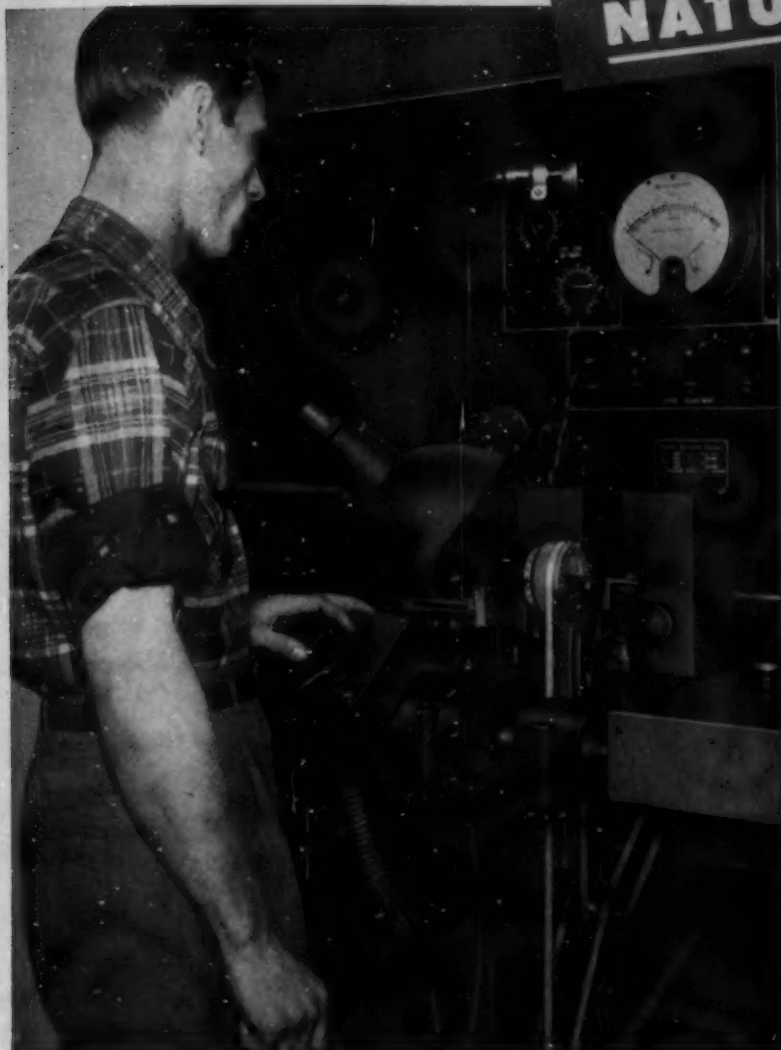


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Size 21" x 27". Filled with re-processed Goose and Duck feathers.

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In assorted colors.

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Lots of 25. Each...\$5.95

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Institutional quality. No rough edges or sharp projections to snag stockings or injure skins. 11" top x 12" high. Choice of colors, Green, White, Brown or Red.

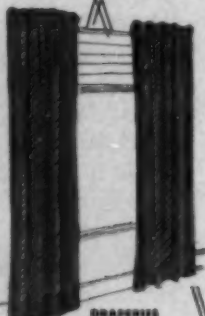
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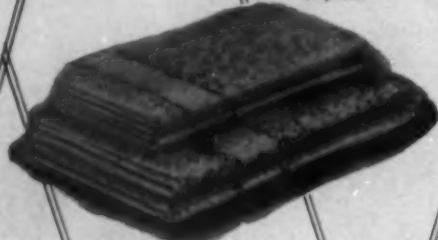
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Tubular chrome steel. Extra heavy 2 1/2" black webbing, rubber feet. Ht. 28 1/2". 16" spread overall. 18" wide overall.

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Double thread, all white Terry cloth. Strong selvage.

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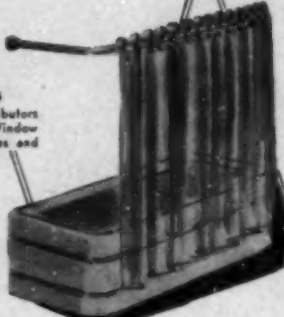
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Starlet Towels — part linen. Red, blue or green border.

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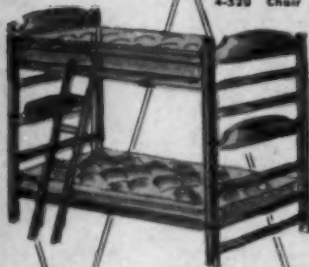
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Phone: Miami 7-5781

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All Prices
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Unless Otherwise Stated



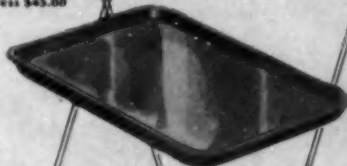
DESK AND CHAIR
Walnut or Maple finish. Desk has 20" x 42" top.
4-520 Chair \$ 9.81



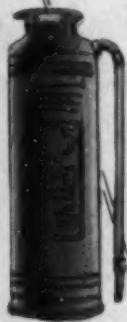
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Sturdily constructed ALL STEEL flat spring. Wood ladder and guard. Choice of Maple or Walnut.
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Perfect balance, stationary assembled gear. Wet and dry pick up.
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16" Each \$316.00



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Bronze finish. Ht. extends 17". 6 1/2" Metal shade to match.
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Bronze finish. 15 1/2" overall. 6 1/2" base. Shade 12". Uses 100 watt bulb. Complete with cord.
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Now... a fully-tested heavy-duty hair dryer built for hard, continuous service in schools and clubs. Dries hair thoroughly in 3 to 5 minutes! **Reduces colds.** Speeds locker room traffic. Safe, quiet, rugged, efficient, dependable! Fully guaranteed. Write for present prices and quick delivery schedules.

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Height: 44"
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\$39.85 Each
12 or more
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STEEL CHAIR
with upholstered seat.
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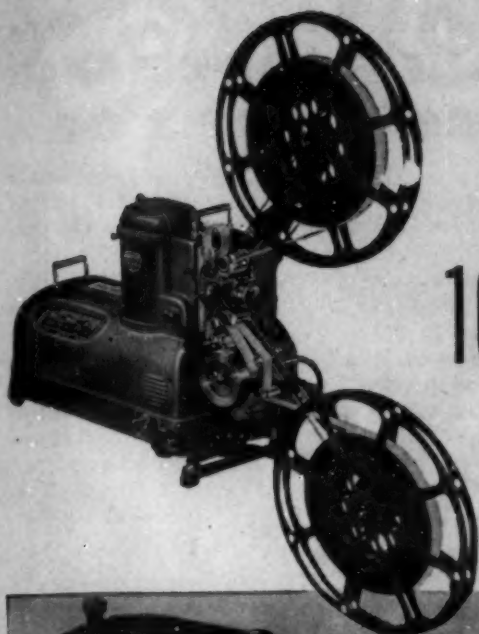
Quietness—Without screening the water, Sloan Quiet Flush Valves are whisper quiet.

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*For the best in Flush Valves
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new **SWING-OUT GATE**

For Easy, Quick Cleaning . . .

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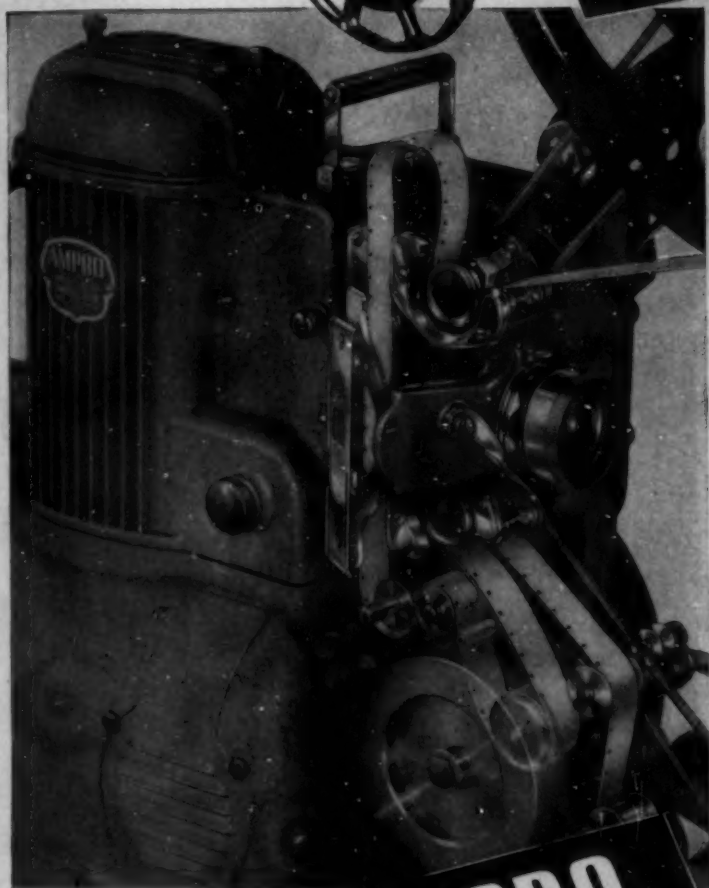
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NOTE: In the illustration, the flywheel is shown in phantom view so that you can see the complete path of the film through the projector.



For the complete story, including prices, specifications, on the new "Premier-20", send coupon **TODAY!**

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8 mm Silent • 16 mm Silent
16 mm Sound-on-Film • Slide Projectors
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City State



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THUS THIS NAME will live and be an inspiration to the members of the Dartmouth hockey team.

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LASTING ECONOMY**

A 200 lb. load was placed on this chair, which was then rocked mechanically, with a drop of $4\frac{1}{2}$ " on each "rock." After 100,000 "rocks" and "drops" this chair was solid and tight as new! It's self-leveling, made of high yield strength, extruded aluminum alloy.

LONG-WEARING—The silvery Alumilite finish will not corrode, chip, crack, peel or show finger marks. Heat, cold, dryness or dampness cannot affect this chair. Washing will not fade this tough upholstery fabric.

BEAUTIFUL—Graceful, smart-looking, harmonizes anywhere. Formed seat and posture design make it really comfortable. Ornamented with black plastic finials; has non-marring leg glides. Choice of rich up-



Self-leveling

holstery colors: Red, Green, Blue, Ivory, Dark Green and Dark Brown.

SEE THIS STURDY CHAIR at your supply house—or mail coupon to The Aluminum Cooking Utensil Co., Wear-Ever Building, New Kensington, Pa.



WEAR-EVER

Aluminum Chairs

We would like to see the new Wear-Ever Aluminum Chair:

Color Also price on (quantity)

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Firm

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City Zone State



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SAF-T-KLENZ is scientifically compounded to remove stubborn rust stains, lime formations, soap and grease deposits. **SAFE** chemical action does the work without hard scrubbing. Leaves a clean sparkling surface that is practically slip-proof.



Generous Sample FREE

SAF-T-KLENZ must satisfy or we cancel the invoice. Send today for **FREE** sample.



"Bull Frog"

SAF-T-KLENZ

BERMAN CHEMICAL COMPANY

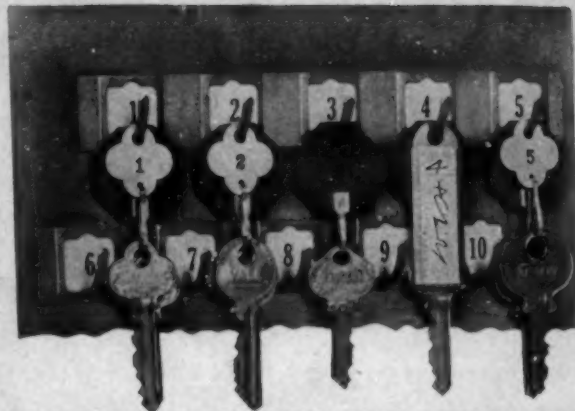
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your school can do it, too!

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Genuine
Cathedral
Chimes*



*When Spring comes, bringing Easter
—clean and fresh over the land...
when the old things of earth are revived
and the new things are born...in the resurrection of the world you will hear music.
And the music that tells the story of Easter
more beautifully than any other is the music
of cathedral chimes from a church tower.*

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This precision-built HOLT maintenance machine in addition to doing a perfect job of floor upkeep in your institution, can do an equally effective job of cutting costs. Here's why: Records from hundreds of leading institutions throughout the country prove HOLT floor machines deliver *more* trouble-free hours of work, require *less* servicing than other equipment. Mail coupon today for FREE Floor Care Booklet and Catalog.



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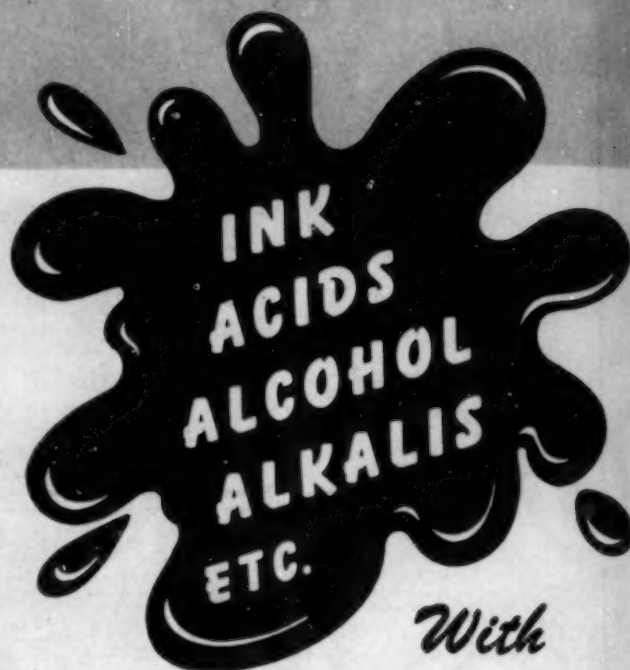
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That's the way to guard hardwood floors . . . to protect your floor investment. PYRA-SEAL treatment gives floors a hard, lustrous, beautiful finish that resists spotting and staining. And, because PYRA-SEAL seals the pores in the floors, the protection lasts so long. That's why PYRA-SEAL outwears ordinary finishes many times over . . . why it is the most practical . . . most enduring . . . and most economical floor treatment for wood floors.

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VESTAL INC.
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The effective answer to your weed problems!



Photo Courtesy of Detroit University, Detroit, Michigan

WEED-NO-MORE 40

AMERICA'S NO. 1 WEED KILLER

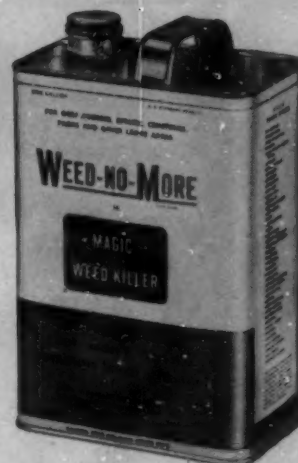
GREENKEEPERS AND SUPERINTENDENTS OF GROUNDS know the value of beautiful weed-free turf. That is why so many are now using and praising Weed-No-More 40.

IT'S EFFECTIVE! One gallon of Weed-No-More 40 concentrate makes 400 gallons of spray, enough to treat two acres. Weed-No-More's butyl ester formula—plus a special emulsifying agent—makes for better adherence to broadleaved weeds and faster absorption by the weed plant, thus producing quicker,

surer, and more effective killing action.

IT'S AVAILABLE NOW! Many of America's best-known golf courses, parks, cemeteries, and schools now use Weed-No-More 40 regularly for beautiful weed-free turf. Safe to use—easy to use—assures savings of hundreds of dollars (on many golf courses, thousands of dollars) compared with previously used methods of weed control.

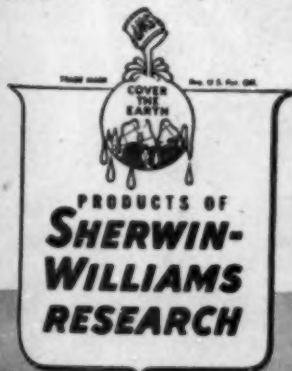
For full information, phone your local dealer, or write any of the companies listed below.



Available in 1-gallon and 5-gallon cans, 55-gallon drums

Write for Free Movies!

Informative 17-minute 16mm full-color sound movie presents actual proof of the remarkable killing action of Weed-No-More. Available for entertainment showings to committees, board meetings. Write Film Dept. D-3, 12th Floor Midland Bldg., Cleveland, Ohio.



Can't Get Spray Equipment?

To help you until you can obtain delivery of spray equipment, Sherwin-Williams Research has developed a 50-gallon sprayer that can be easily built in your shop for under \$40. For *free* plans and specifications, write Dept. D-3, 12th Floor Midland Bldg., Cleveland, Ohio.



Acme White Lead & Color Works, Detroit • W. W. Lawrence & Co., Pittsburgh
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★ Hillyard's Gym Finish produced and tested through many years of research and actual "wearing conditions" amply protects gym floor surfaces from extreme wear. Hil-Tone Dressing protects its beauty with easy maintenance and economy. Used on many thousands of the finest gym floors in the United States, and for the twelfth year on the famous Madison Square Garden floor.

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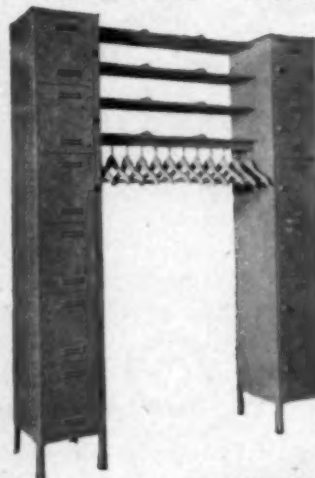
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Valet Costumers and Racks keep clothing "in press", aired on spaced hangers, and hats on ventilated shelves. Save floor space—accommodate 3 persons per sq. ft. Fit in anywhere. Lifetime welded construction.

Where lockers are needed for lunches, tools, aprons, etc., use PETERSON Locker Racks. 5 ft. x 15 in. unit provides 12 persons with hangers hat spaces and individual 12 in. x 12 in. x 15 in. lock boxes. These combination units are widely used to double capacity of, or eliminate, locker rooms.

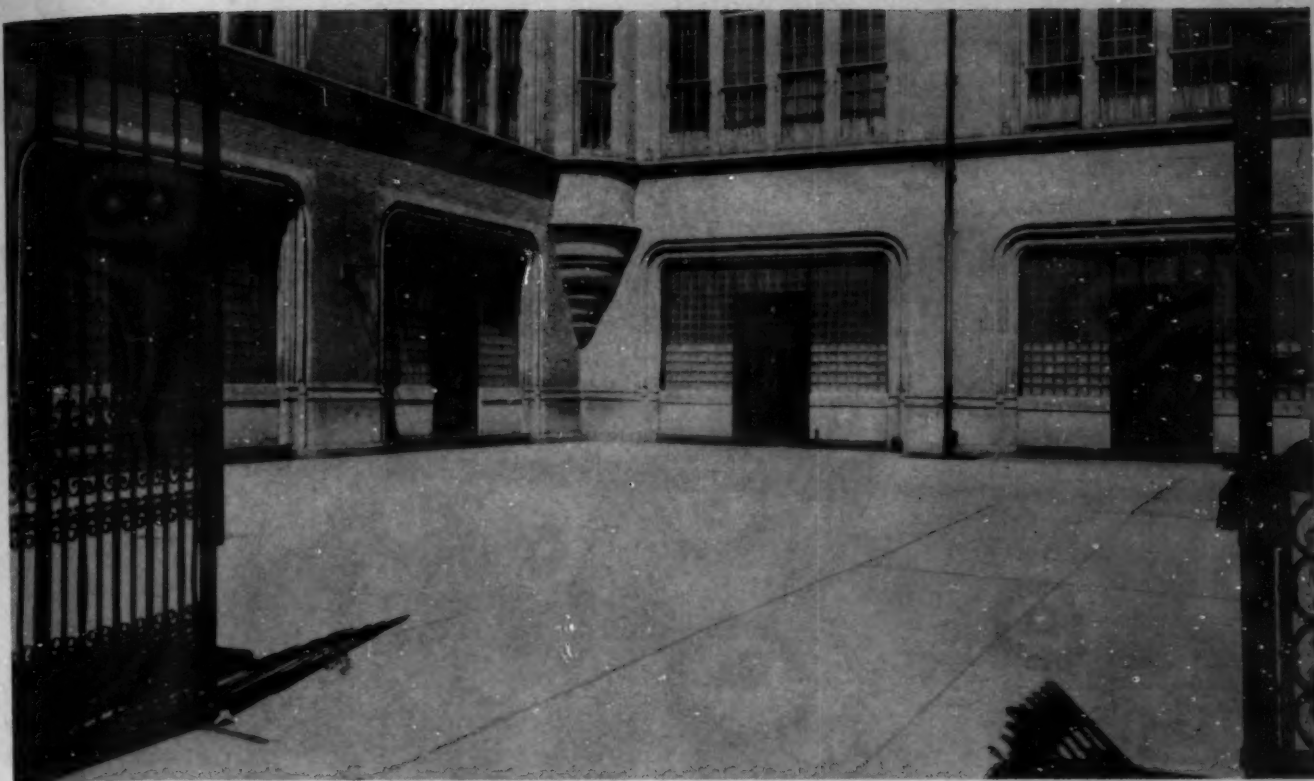


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H-16.

VOGEL-PETERSON CO.

"The Coat Rack People"

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How PC GLASS BLOCKS pay for themselves

SATISFIED users report that the lighting, insulating and protective properties of PC Glass Blocks cut operating costs.

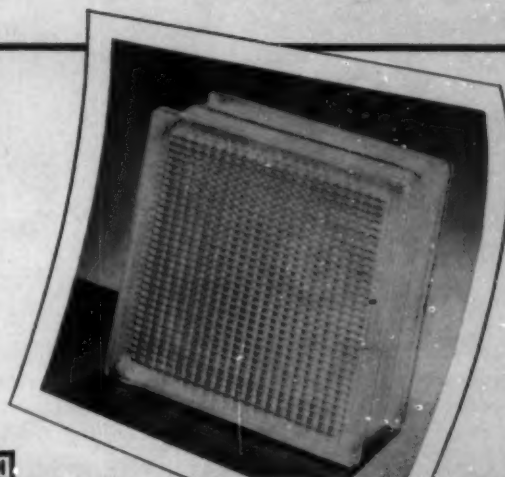
PC Glass Blocks of the proper pattern distribute floods of diffused daylight, even to areas remote from light openings. That means better lighting for lecture rooms, halls, laboratories and stair wells. And you pay less for artificial lighting.

PC Glass Blocks reduce heat losses, hence reduce fuel costs. The solid panels prevent infiltration of destructive grit. The smooth glass surfaces can be quickly and easily cleaned—inside and outside—by one man with a wet brush, so you save additional money on maintenance.

These savings on operating and maintenance costs are some of the ways PC Glass Blocks pay for themselves. In addition, they exclude distracting sights, dampen disturbing outside noises, thereby making it easier for instructors and students to concentrate.

The many and varied uses of PC Glass Blocks are fully described and illustrated in our recently published book. We shall be glad to send you a free copy upon request. Pittsburgh Corning Corporation, 632 Duquesne Way, Pittsburgh 22, Pennsylvania.

Also makers of PC Foamglas Insulation



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1947 Victor Teaching Triumph



NEW MODEL 60
16mm sound motion picture projector

AN INNOVATION in 16mm sound projector development . . . the new, sleek Victor "60" combines modern design and many new mechanical improvements. It is truly the finest teaching tool in audio-visual education.

As smart in appearance as today's airplane luggage — with its light-weight, aluminum case and matching speaker — the Model "60" further affirms Victor leadership in the 16mm

equipment field. As far ahead as its striking appearance are the new engineering refinements which provide simplicity of operation and peak performance for classroom or for auditorium.

Learn about this teaching triumph by writing today for booklet describing "The New Victor 60" — a booklet of good counsel in making the correct sound movie equipment selection.



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MAKERS OF MOVIE EQUIPMENT SINCE 1910



PENICILLIN SPEEDS CURE OF COLDS---



But... proper heating and ventilating may be more important to colleges and universities

There are two reasons why classroom ventilation is important in any building or modernization program. First, Architects, College Authorities and Scientists are agreed that nothing is more important to the health, comfort and general alertness of students and instructors than proper classroom air conditions. Second, experience has shown that installation of modern heating and ventilating equipment permits substantial reduction in fuel bills by eliminating unnecessary overheating.

There's a common sense approach to the classroom ventilating problem. That is to ask this simple question, "What equipment has proved . . . not only in theory but in actual usage . . . that it will provide proper classroom air conditions?"

Architects as well as College Authorities all over America will tell you that Herman Nelson Unit Ventilators are the answer. Thousands of installations have proved that these units provide superior results as well as greater operating economy.

It's only natural to expect more from Herman Nelson Unit Ventilators. They are manufactured by the Company which pioneered in the development of unit ventilators — the Company which has always maintained its leadership in this field.

Contact THE NEAREST HERMAN NELSON PRODUCT APPLICATION ENGINEER OR DISTRIBUTOR. He is trained and qualified to assist you in the solution of heating and ventilating problems.



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Sturdiness, Utility and Comfort make Clarin chairs the answer to every need for flexible, space-conserving auxiliary seating.

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CLARIN MFG. CO.

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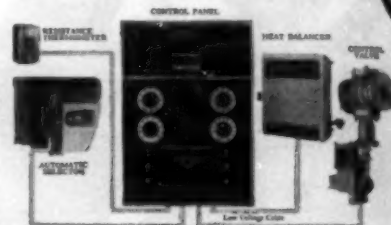
There are more **Clarin** steel folding chairs in institutional service than any other make

If your goal is more efficient,
more economical heating,
DUNHAM "TEAMWORK"
will help you!

Championship teams are made by individuals working together efficiently and well. So, too, the Dunham Differential Vacuum Heating System with its component parts designed to work as a unit—**quickly, surely, automatically**—provides comfort in your classrooms. The Dunham System helps maintain student and instructor efficiency, compensating for changing weather conditions, as well as indoor conditions as overcrowded classrooms. That's why the Dunham system is being specified for replacement in existing colleges and schools and for installation in new construction. For further information write for Bulletin 632. C. A. DUNHAM COMPANY, 450 East Ohio Street, Chicago 11, Ill.



The coordinated "System" control consists of control panel usually located in the boiler room, room resistance thermometer, heat balancer, selector and control valve.



D347/D

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BETTER HEATING

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for your lockers
at no extra cost

Here's why you get extra protection and extra value from Dudley's Roto-Dial School Lock:

- Heavy stainless steel case makes this lock extremely difficult to force ... provides long life even when abused.

- Master Chart permits emergency opening of any lock, by proper authority. Dial finished in glossy black enamel—divisions in easily-read white. Dial cannot be turned when lock is open. 216,000 possible changes of combination.

These and other extras that have made Dudley the favorite of American schools cost you no more!



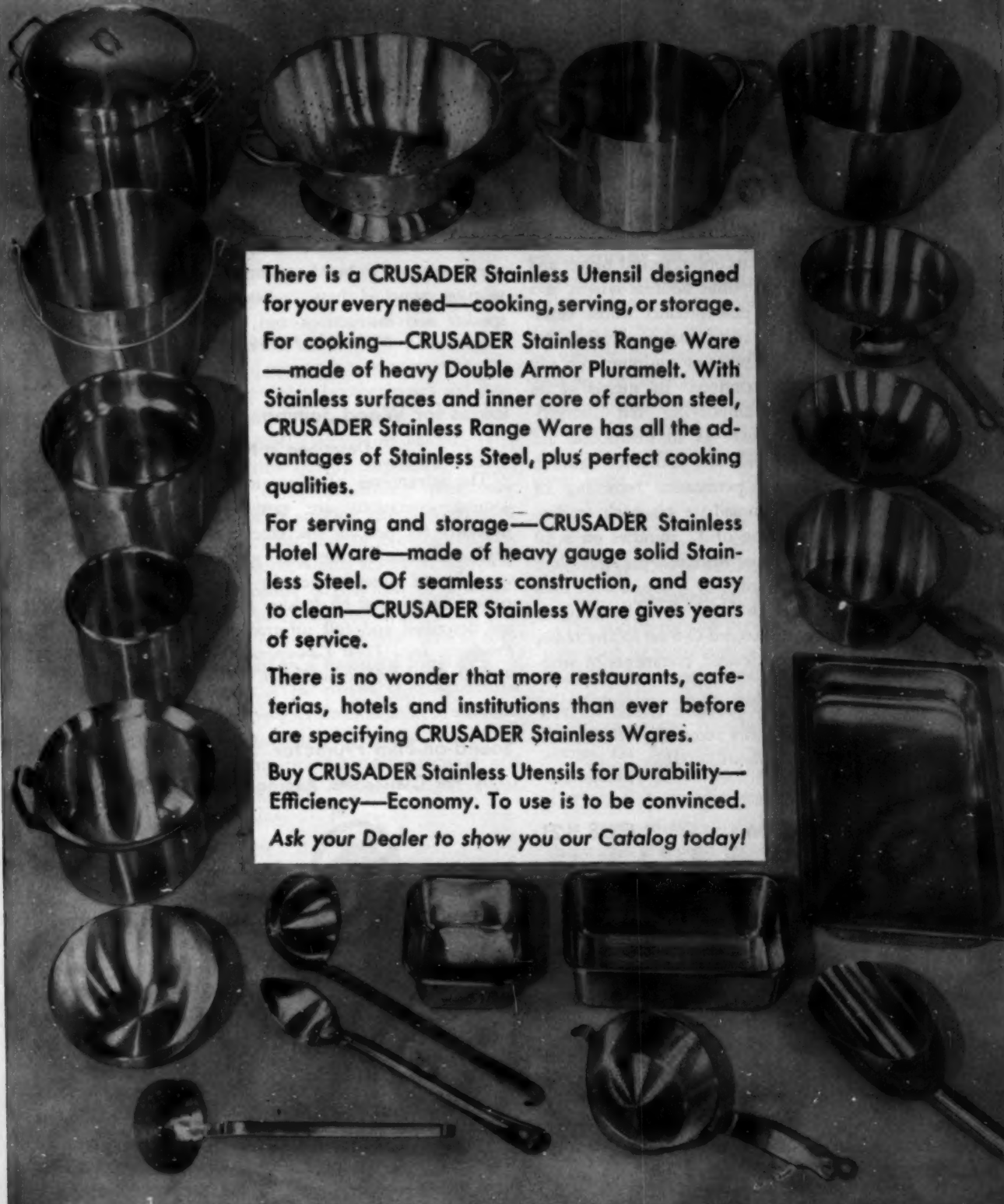
RD-2

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DUDLEY LOCK CORP.

570 W. Monroe St., Dept. 322, Chicago 6, Ill.

The World's Finest **UTENSILS** of DURABILITY—EFFICIENCY—ECONOMY



There is a CRUSADER Stainless Utensil designed for your every need—cooking, serving, or storage.

For cooking—CRUSADER Stainless Range Ware—made of heavy Double Armor Pluramelt. With Stainless surfaces and inner core of carbon steel, CRUSADER Stainless Range Ware has all the advantages of Stainless Steel, plus perfect cooking qualities.

For serving and storage—CRUSADER Stainless Hotel Ware—made of heavy gauge solid Stainless Steel. Of seamless construction, and easy to clean—CRUSADER Stainless Ware gives years of service.

There is no wonder that more restaurants, cafeterias, hotels and institutions than ever before are specifying CRUSADER Stainless Wares.

Buy CRUSADER Stainless Utensils for Durability—Efficiency—Economy. To use is to be convinced.

Ask your Dealer to show you our Catalog today!



CRUSADER Stainless **WARES**

LALANCE & GROSJEAN MFG. CO. WOODHAVEN 21, N. Y.

WHAT'S NEW.....

The easiest way to get more information about the new products described in this section is to use the postage paid card opposite page 44. Just circle the key number on the card which corresponds with the number in the headline of each item. COLLEGE and UNIVERSITY BUSINESS will send your request to the manufacturer.

Recorder, Record Player

CUB 120

And P.A. System Combined in One Unit



The Model RC-47 Recorder-O-fone, a combination recorder, record player and public address system, is a new product whose versatility makes it a useful piece of equipment on any campus. By means of its amplifying and immediate

playback features, it will serve as an instruction aid in all types of speech classes, voice and dramatics training.

The Record-O-fone permits permanent recording of sound from any source with immediate playback facility. Its dual speed allows a recording of 12 minutes on a 10 inch disk at 33 1/3 revolutions per minute—the equivalent to four 12 inch commercial records—or it copies a 12 inch commercial record on a 10 inch blank at 78 revolutions per minute. By connecting the Record-O-fone to any radio, broadcasts can be recorded. If desired, comments or singing can be "dubbed in."

The unit, which is completely portable, is said to offer every facility for professional quality recording—*Bell Sound Systems, 1183 Essex Avenue, Columbus, Ohio.*

Extended Surface Radiation

CUB 121

Described in New Catalog

A new catalog bulletin describing Webster Type WI Extended Surface Radiation has been prepared by Warren Webster & Company, specialist in the field of steam circulation and steam distribution for nearly sixty years. This type of radiation, according to the bulletin, is particularly advantageous in auditoriums, gymnasiums, offices, stock rooms, storerooms and restrooms with steam or hot water heating and wherever floor space or vertical wall space, or both, are limited. The bulletin is generously illustrated with photographs and charts and includes such data as dimensions, ratings and guarantee.—*Warren Webster & Company, Camden, N. J.*

Radio Receiver

CUB 122

Construction Kits Available to Colleges

Radio receiver construction kits, similar to those used in the radio and electronic training courses conducted by the army and the navy during the war, have been made

available by the Specialty Division of General Electric Company's Electronics Department for radio education applications in schools and colleges.

They are designed to illustrate all the principles involved in modern radio receiver construction and include all the parts necessary to build a complete 5 tube superheterodyne receiver, punched chassis, tubes, loop antenna, 5 inch loudspeaker and instructions and diagrams.—*G-E Electronics Department, Wolf Street Plant, Syracuse, N. Y.*

Glues for Wood Joining

CUB 123

Described in New Folder

The advantages of Lignotite Casein Glues for wood joining operations are ease of preparation, lack of necessity for heating the glue, wood or workrooms and high resistance of the glue joints to humidity, weather changes and water immersion tests, as outlined in a four page folder issued by Paisley Products, Inc. Two grades are described and full information is presented.—*Paisley Products, Inc., 1770 Canalport Avenue, Chicago 16, Ill., or 630 West Fifty-First Street, New York 19, N. Y.*

Sound-on-Film Projector

CUB 124

For Classrooms, Average Sized Auditoriums



Heralded as Ampro's finest sound-on-film projector employing an incandescent lamp as a light source, the "Premier-20" is particularly recommended for use in classrooms and average sized auditoriums. Emphasized as one of its exclusive features is the new swing-out gate which permits easy inspection and cleaning of aperture plate and pressure

shoe without disturbing the focus of the projection lens. Other features incorporated in the projector's extremely simplified design include a long wearing roller sprocket shoe assembly that opens and closes automatically with the film gate for quick, easy threading and that can be operated individually without disturbing the film gate; quick centering tilting control knob; fast, automatic rewind.

Equipped for both silent and sound film speeds, still picture and reverse operation, switches are readily accessi-

ble on a centralized control plate. Coated super 2 inch f:1.6 lens is standard equipment on the Ampro "Premier-20" and is easily replaceable by either 1, 1½, 2½, 3, 3½ or 4 inch coated super lenses. This projector is said to give brilliant illumination with standard prefocused lamps up to and including 1000 watts.

The Amprosound "Premier-20" operates on 50-60 cycles, 105-125 volts A.C. On D.C. current, the amplifier requires use of a converter but the projector motor operates on either A.C. or D.C. The complete unit includes projector, speaker, lens, lamps, 1600 foot reel and standard accessories. The new luggage type of projector case and speaker case are supplied also.—*Ampro Corporation, 2835 North Western Avenue, Chicago 18, Ill.*

Illuminated Batons

CUB 125

To Lead Campus Parades

Plexiglas, which has found many practical peacetime uses since its return from war service as bomber noses and gun turrets, has a new application which literally places it at the head of the campus parade: illuminated batons.

Custom made of the highest quality chromium, according to the manufacturer, with illuminated, transparent plastic ends, the batons provide striking effects when used in dimly lighted buildings and at outdoor evening festivals and parades. The illumination, which traces in light the intricate twirlings of the baton, is provided by a crystal clear molded ball of Plexiglas at one end of the baton and a small Plexiglas insert at the other end with current supplied by several small, pencil thin flashlight batteries.

Plexiglas, the transparent acrylic plastic, is manufactured by the Rohm & Haas Company of Philadelphia; the batons, by the Clark Baton Manufacturing Company. The batons are being distributed direct from the manufacturer and through leading musical supply houses.—*Clark Baton Manufacturing Company, Elkbari, Ind.*

Scale Drawing Pad

CUB 126

Assures Accuracy Without Benefit of Ruler

Jiffy Sketch, a scale drawing pad that enables an individual to make properly proportioned drawings without the aid of a ruler, drafting board or T-square, is being manufactured by the Jiffy Sales Company. Containing 75 unruled sheets of high quality tracing tissue, the pad is enclosed within a cover jacket consisting of four cardboard flaps on three of which a scale is printed. The user simply folds back the cover flap, places one of the tissue sheets over the scale desired and the drawing is made accurately to scale by means of the printed lines which show through. Drawings made on this pad can be blue printed.

Information, such as basic mechanical drafting standards, electrical, welding and architectural symbols, decimals of a foot, decimal equivalents of fractions, with circumferences and areas of circles, is printed on the back of each cover flap.—*Jiffy Sales Company, 1857 East Thirty-Seventh Street, Cleveland 14, Ohio.*

Pusher Type of Coach

CUB 127

Enters the School and College Field



With the announcement of the Superior Coach Corporation's new Varsity-Liner, the pusher type of coach enters the school and college field for the first time. School coach construction now approaches a new standard of modern design and engineering, it is reported by the manufacturer.

Powered by a Chrysler engine and designed especially for all purpose service to schools, colleges and other groups, the Varsity-Liner is said to be ideally suited to increased extracurricular activities which have called for a corresponding increase in group travel. Accommodating either 29 or 33 passengers, mohair cushioned seats ensure comfort during long trips. Considerable space for transport of athletic or other equipment is provided by the roomy rear section of the coach. An all steel body, safety glass windows, safe lighting and driver vision and other safety features pioneered by Superior are followed throughout in the construction of this vehicle.—*Superior Coach Corporation, Lima, Ohio.*

Small Pre-Dishwashing Machine

CUB 128

Designed for Cafeterias, Fountains

The scrapping and pre-washing features of the Salvajor, now used in many institutions throughout the country, are available in a new smaller model designed for use in establishments where dishwashing space is limited, such as cafeterias and fountains. Only 16½ inches by 24½ inches, the new model is said to be installed easily in drainboards or narrow, soiled dish tables.

The Salvajor, whose pre-washing feature is recommended as a means of attaining clean, sterile tableware in the final dishwashing, reportedly offers not only efficiency but economy as well by saving time, labor and money. It traps silverware and small dishes which, in the scrapping operation, are sometimes thrown out accidentally with the garbage. Moreover, a special scrap basket collects, sanitizes and reduces the garbage.

Deliveries of the machine, designated as the Salvajor SM-1, will begin in July, the manufacturer reports.—*Salvajor Company, 118 Southwest Boulevard, Kansas City 8, Mo.*

Film Library Chests

CUB 129

Offer Accurate Selection, Safe Stacking

Push the button and out comes the reel!

That's all there is to selecting a reel from the new 8 mm. and 16 mm. Fodeco Ejector Film Library Chests with push button control. Self aligning stacking is another special feature. The chests permit convenient storage of one unit on top of another with no danger of their jockeying out of position or falling. Because the door opens downward,

any reel in any chest can be removed without disturbing any other reel in any other chest, regardless of the number of reels in storage.

Other features of the precision built chests are their all metal welded lifetime construction, their full depth metal compartment, outside and inside index, positive snaplatch, sturdy lock and key, foldback carrying handle for easy portability and an opalescent wrinkle finish in library brown.—*Technical Devices Corporation, Roseland, N. J.*

Carbon Dioxide Extinguishers

CUB 130

Manufactured in New Sizes at Old Prices



Two new CD-Sno Fog carbon dioxide extinguishers, a 5 pound size and a 2½ pound size, replacing the 4 pound and 2 pound sizes, respectively, are announced by the General Detroit Corporation and the General Pacific Corporation. By marketing the replacements at the same prices as were charged for their predecessors, the manufacturers are offering 25 per cent increased fire

fighting effectiveness at no increase in price, it is pointed out. Moreover, the new extinguishers have been designed to fit in the original wall brackets, which obviates the necessity of owners' purchasing new brackets. A changed design of the extinguisher shell in the 2½ pound size has made it lighter than the 2 pound size, without sacrificing structural strength.—*The General Detroit Corporation, 2272 East Jefferson Avenue, Detroit 7, Mich., or The General Pacific Corporation, 1800 South Hooper Street, Los Angeles 21, Calif.*

How to Break Down List,

CUB 131

Item by Item, Without Re-Writing

The problem of how to break down a list, item by item, with each on a separate sheet of paper and without re-writing, has been solved by Ditto, Incorporated. The solution is a patented method by which a set of overlapped strips called "Analyslips" is run through a Ditto duplicating machine, picking up one item on each Analyslip. Up to 30 slips can be run through the machine at one time after which they are torn apart and used as desired.

Operations in which Ditto Precision Spaced Analyslips are reported useful include inventory control, analyses of purchases, analyses of sales, stock taking, preparation of catalogs, labor tickets, move tickets and inspection unit copies. The slips can be made in practically any size, either paper or card stock, according to the manufacturer, in any number of units to a set and printed on one or both sides.—*Ditto, Incorporated, 2243 West Harrison Street, Chicago, Ill.*

Furnishings, Equipment

CUB 132

... From Kitchen to Dormitory

Dormitory furniture . . . classroom furniture . . . kitchen equipment . . . silverware . . . hospital and dispensary equipment . . . all are described, as are many other items for use throughout the institution, in the new 80 page anniversary catalog of the Harold Supply Company. Much of the furniture is newly styled, it is pointed out, and includes many chromium items and the new Gordon line of porch and lawn furniture which is available in white or ivory with water repellent upholstery in six different shades. The catalog is now available.—*Harold Supply Company, 100 Fifth Avenue, New York 11, N. Y.*

Lamps for Rugged Duty

CUB 133

Suggested in New Bulletin

Four types of light bulbs, especially designed for service where ordinary light bulbs fail because of vibration or other rugged duty, are described in the Lustra Corporation's bulletin No. 103. Included are Vibration Service lamps with all flexible construction, Rough Service lamps with flexible 12 anchor filament mounts and Milltype lamps with all wire-shock absorbing filament supports and other rugged duty features. According to the 4 page bulletin, these lamps assure continuously efficient service in applications ordinarily destructive to standard types of lamps.—*Lustra Corporation of America, 40 West Twenty-Fifth Street, New York 10, N. Y.*

Classroom Lighting

CUB 134

Is Subject of New Booklet

"Over-All Lighting" is the title of a new booklet that is primarily a popularized version of the scientific basis for good lighting in classrooms. Prepared by Wakefield, the cleverly illustrated booklet begins with the fundamentals of lighting, progresses through the steps of how good lighting promotes easier seeing and the importance of adequate lighting in classrooms and concludes with discussion of a pertinent problem—how to maintain lighting equipment at its originally designed performance. The booklet is available without charge.—*The F. W. Wakefield Brass Company, Vermilion, Ohio.*

Electric Hand Dryer

CUB 135

Evaporates Moisture Quickly, Prevents Chapping

Chapping and winter skin roughness caused by improper drying are said to be prevented by the use of the new Electric-Aire hand dryer. A product of twenty-five years' practical experience in the manufacture and marketing of electric hand and hair drying equipment, this unit is reputed to dry hands faster and more thoroughly than any hand dryer developed.

The Electric-Aire hand dryer operates quietly and is designed for hard, continuous use. Its dependable opera-

tion and care free service, according to the manufacturer, recommend it for use in campus washrooms. Deliveries are scheduled to start soon on both recessed and wall-surface mounted models, E. S. Hewitt, executive vice president, announces.—*Electric-Aire Engineering Corporation, 209 West Jackson Boulevard, Chicago 6, Ill.*

Regulators, Mixing Valves

CUB 136

For Water Temperature Control

Reputed to contain the most nearly complete line of regulators and thermostatic water mixing valves made for water temperature control, Condensed Catalog No. 3035 is announced by the Powers Regulator Company. Shown in this new 16 page catalog are three way mixing valves for two temperature hot water systems, thermostatic regulators and valves for all types of hot water heaters, for all types of shower baths, for shampoo fixtures, for x-ray and photo developing baths, for laboratories, for steam and water mixers for dishwashers and for various thermostatic water mixing valves used in washing vehicles.—*The Powers Regulator Company, 2720 Greenview Avenue, Chicago 14, Ill.*

Catalog on Entomology

CUB 137

Lists Complete Supply Services

Ward's Catalog No. 479 not only offers complete supply services in entomology but is useful in itself as a teaching aid and collector's guide. It pictures and describes equipment for collecting, mounting and displaying insect specimens and lists and briefly reviews books and manuals in entomology, ranging from beginner's guides and general literature to publications on special phases of the subject. Described, too, are Ward's Insect Explano-Mounts which combine actual specimens with text and drawings to depict the life histories of insect enemies.

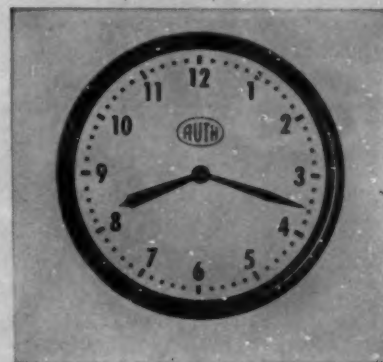
This special 1947 catalog is available upon request.—*Ward's Natural Science Establishment, Box 24, Beechwood Station, Rochester 9, N. Y.*

Program Clock System

CUB 138

"Watches Itself," Requires No Supervision

With the addition of Telechron motored, self starting, synchronous program clock systems to its line of program bell, fire alarm, hospital signaling and intercom telephone systems, the Auth Electric Company can now offer schools complete systems



with one responsibility but many operational features.

Because the system is said truly to "watch itself," the need for central control clocks, added accessories and frequent servicing is eliminated. Program signals are sounded automatically, with no supervision required, and timing of programs can be changed easily as desired.

Clocks, with single or double dial mountings, are available in various sizes for installation at as many key points throughout the building as required. Complete information can be obtained from the manufacturer.—*Auth Electric Company, Inc., 34-20 Forty-Fifth Street, Long Island City 1, N. Y.*

For Firing Pottery . . .

CUB 139

This New Catalog Describes Kilns

Perfection Kilns and their use in firing china, glass, pottery, tile and glazes are described in a new eight page catalog announced by the Bellevue Industrial Furnace Company. The kilns, according to the informative booklet, are built in two models of four different sizes each and are furnished with atmosphere type of burners for either gas or kerosene oil fuel. Complete specifications and information on replacement parts are included.—*Bellevue Industrial Furnace Company, 2971 Bellevue Avenue, Detroit 7, Mich.*

WANT ADVERTISEMENTS

The rates for want advertisements are: 10 cents a word; minimum charge, \$2.50.

Address replies to COLLEGE AND UNIVERSITY BUSINESS, 919 N. Michigan Avenue, Chicago 11, Ill.

POSITIONS WANTED

Bursar-Treasurer-Assistant Comptroller—Woman with extensive experience, knows college accounting and fund accounting; college graduate. Write Box CW12, COLLEGE AND UNIVERSITY BUSINESS.

Business Manager (Chief Financial and Business Officer)—Fourteen years general administrative and investment experience in well-known, medium-sized, high ranking university in up-state New York; best of training and experience; knowledge of dormitories, dining facilities, building and grounds, insurance, budgets, government contracts, real estate, mortgages, and investments; understand university accounting, but am not an accountant; ready to assume primary business and financial responsibilities; married, 35. Write Box CW9, COLLEGE AND UNIVERSITY BUSINESS.

Comptroller or Business Executive—Available for college or university position; experienced in budget control and accounting procedures, business management and executive work with college; can organize all departments; references can be furnished. Write Box CW10, COLLEGE AND UNIVERSITY BUSINESS.

Comptroller - Treasurer - Executive Assistant—Technical graduate; mature judgment; economic minded; 25 years financial experience in municipal, commercial, industrial and educational fields; presently with educational institution with long experience as comptroller and assistant treasurer; thoroughly familiar with budgets, costs, machine accounting, purchasing, veteran procedure, retirement plans. Write Box CW11, COLLEGE AND UNIVERSITY BUSINESS.

Comptroller—Professor of Accounting, B.S., 1927, C.P.A. 1931; experience includes eight years college teaching; fifteen years public accounting; seven years state financial official

(appointed); and four years in charge of college business offices; served 38 months in U.S. Army during World War II; age 42, married, children aged 3 and 7; now similarly employed in Land Grant college with over 6,000 enrollment, consequently not available in less than 90 days. Write Box CW8, COLLEGE AND UNIVERSITY BUSINESS.

POSITIONS OPEN

Property Manager—Small New England college desires experienced technically trained man to direct operations of buildings and grounds department; must be capable of taking complete responsibility for operation, maintenance, and improvement of physical plant and grounds; give full details of experience and salary desired in application. CO6, COLLEGE AND UNIVERSITY BUSINESS.



In addition to POLISHING, STEEL-WOOLING, WET and DRY SCRUBBING, SANDING, and GRINDING, the *Finnell* Motor-Weighted Machine WAXES FLOORS. Also SHAMPOOS RUGS.

Waxing, too, can be done mechanically—and by the *hot-wax process*—with a 600 Series Finnell, a Finnell Dispenser, and Finnell-Kote Solid Wax. The wax is heated in the dispenser and, when reduced to liquid, fed to the floor through the center of the brush ring, penetrating deeply while the machine gives uniform distribution. In this process, the *genuine wax content* (over three times greater than average wax in the case of Finnell-Kote) is thoroughly utilized. Thus, *hot waxing* reduces the frequency of waxing!

The 600 Series Finnell is equipped with a Feather-Touch Safety Switch that provides complete automatic switch control. Switch works with either hand from either side of handle. When handle is released, machine stops. Self-propelled . . . the machine glides over the floor with virtually effortless guidance. Horizontally-mounted motor and correct distribution of weight afford truly balanced operation.

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G. E. Drip-Proof Capacitor Motor . . . Timken Bearings . . . ruggedly constructed worm drive in extra-capacity leak-proof gear case, lubricated for 2500 hours. Smooth and noiseless in performance . . . a precision product throughout, developed and produced by Finnell, originators of mechanical floor-maintenance equipment. The 600 Series Finnell comes in five sizes: 11, 13, 15, 18, and 21-inch brush diameter.

For consultation, free floor survey, or literature, phone or write nearest Finnell branch or Finnell System, Inc., 4403 East Street, Elkhart, Indiana.



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have made projection screen history!



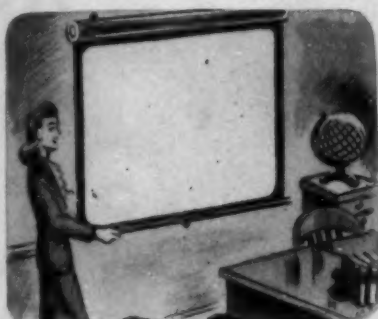
1927 Da-Lite was FIRST with a fade-proof and shatter-proof Glass-Beaded Screen suitable for roller mounting.



1928 Da-Lite anticipated "talkies" with the FIRST perforated sound screen.



1931 Da-Lite was FIRST with a tripod screen offering single-operation height adjustment.



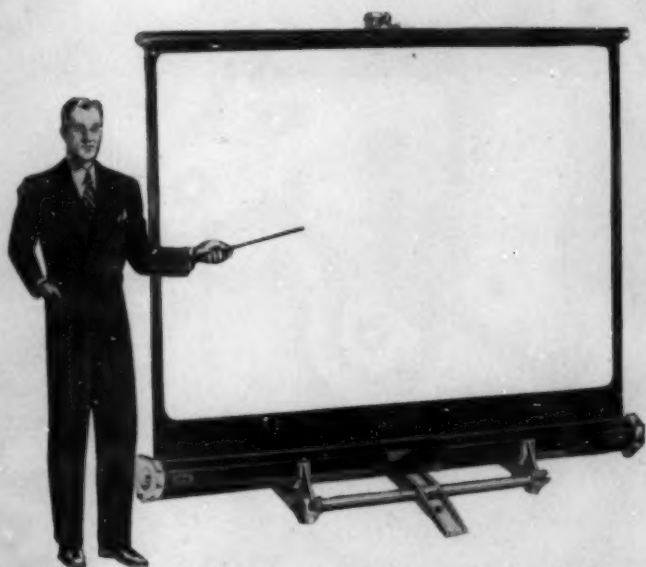
1934 Da-Lite brought out the FIRST spring-operated hanging screen in a metal case.



1938 The Da-Lite Electrol was the FIRST complete, ready-to-install electrically-operated hanging screen.



1946 Da-Lite presented the New Challenger—the FIRST tripod screen with octagon case for better fabric protection.



1947 Da-Lite will soon have available the new Model C—the FIRST auditorium-type screen that can be hung from wall or ceiling or mounted in its own portable floor support.



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